CITY OF DULUTH
Planning Division
411 W 1st St, Rm 208 * Duluth, Minnesota 55802-1197
Phone: 218/730.5580 Fax: 218/723-3559

STAFF REPORT

File Number	PL 14-155		**Contact**	Steven Robertson, 218 730 5295	
Application Type	MU-C Planning Review		**Planning Commission Date**	November 10, 2014	
Deadline for Action	**Application Date**	October 10, 2014	**60 Days**	December 9, 2014	
	Date Extension Letter Mailed	October 22, 2014	**120 Days**	February 7, 2015	
Location of Subject	2120 London Road				
Applicant	Harbor Bay Real Estate Advisors		**Contact**	Mark Bell	
Agent	John Erickson, DSGW		**Contact**	jerickson@dsgw.com	
Legal Description	See attached				
Site Visit Date	November 1, 2014		**Sign Notice Date**	October 20, 2014	
Neighbor Letter Date	October 28, 2014		**Number of Letters Sent**	30	

Proposal

Applicant is proposing a mixed use (residential and commercial) structure. The applicant states that the project will be "approximately 148 market rate multifamily units and approximately 12,900 square feet of retail". The project will involve demolishing all the existing structures on the block, as well as (in the near future) petitioning the city and state for vacation of public right of way.

	Current Zoning	Existing Land Use	Future Land Use Map Designation
Subject	MU-C	Commercial	Central Business Secondary
North	MU-N	Commercial	Neighborhood Mixed Use
South	MU-C	Residential, Vacant	Central Business Secondary
East	MU-N	Commercial	Central Business Secondary
West	F-2	Commercial	Neighborhood Mixed Use

Summary of Code Requirements (reference section with a brief description):

50-15.3 MU-C District - Planning review by the Planning Commission is required for most development and redevelopment.
50-18.1E Storm Water Management - Addresses water runoff quality and quantity pre- and post-construction.
50-23 Connectivity and Circulation - Focuses on pedestrian and bicycle accommodations.
50-24 Parking and Loading - Addresses required minimum and maximum parking spaces and loading docks, dimensional standards, snow storage and pedestrian circulation.
50-25 Landscaping and Tree Preservation - Landscaping standards such as materials, plant size, location, and tree preservation
50-26 Screening, Walls, and Fences - Screening of mechanical equipment, loading areas, and commercial containers, plus regulations regarding fences and retaining walls.
50-30 Design Standards - Building standards for multi-family, commercial, institutional, and industrial buildings.
50-31 Exterior Lighting - Directs the minimum and maximum illumination values and lighting fixtures for a site.
50-37.11 Planning Review - Planning Commission shall approve the Planning Review or approve it with modifications, if it is determined that the application complies with all applicable provisions of this Chapter.
Height (definition):The vertical distance at the center of the principal front of a building, measured from the grade on that front to the highest point of a flat roof or to the deck line of a mansard roof or to the average height of the highest gable or of a mean height level between eaves and hip or gambrel roof.

III. G-1

Comprehensive Plan Findings (Governing Principle and/or Policies) and Current History (if applicable):

Future Land Use - Central Business Secondary: An area adjacent to and supporting the primary central business area or a stand-alone area providing a similar mix of destination land uses but at a lower intensity than the primary central business area. Includes mixed regional and neighborhood retail, employment centers, public spaces, medium density residential, and public parking facilities. Governing Principle #1 - Reuse previously developed lands

UDC 50-15.3 - MU-C Purpose: Established to provide for community and regional commercial development along commercial corridors and nodal centers. Intended non-residential uses include retail, lodging, service, and recreational facilities needed to support the community and region.

History: This property was rezoned from MU-B/MU-N to MU-C in April 2013. A MU-C Planning Review was approved at this same site by the Planning Commission earlier this year (PL 14-096) that involved two new restaurants (Burger King and Caribou Coffee).

Note: applicant conducted a voluntary community meeting for interested citizens to comment on the proposed development.

Discussion (use numbered or bullet points; summarize and attach department, agency and citizen comments):

1) 50-15.3 (MU-C District) - Multi-family uses are permitted use in the MU-C district, as are restaurants, retail, and other similar commercial uses. The high point of the site is along London Road, gradually sloping downward as you approach the interstate. Elevation varies from 683 feet above sea level along London Road, to 653 feet along South Street. The UDC limits structure to 35 feet in height if within 500 feet of an R-1 zone, and 50 feet if within 500 feet of an R-2 zone. The structure will be approximately 31 feet in height, as measured from the principal entrance off of London Road.
2) 50-18.1 (Natural Resources Overlay) - Site is not within any flood plain. It is within the 1,000 foot shoreland area of Lake Superior, but is outside the structure setback. City Engineering advises that the site needs to address stormwater management requirements for redevelopment, including water quality, rate control, and volume control.
3) The development is contingent upon the city vacating the utility easement in the middle of the block, and MnDOT supporting either a full or partial vacation of South Street. Engineering has commented that they would only support the vacation of the alley after a new sanitary sewer line has been built to city standard, and inspect and accepted by city staff. Sanitary Sewer extensions need to be coordinated with the MPCA and WLSSD. If a new sanitary sewer line is placed on private property, the city would need easements to ensure that the city has the ability to maintain the line in the future.
4) 50-23 (Connectivity) - Proposed development will have fewer curb cuts on to London Road than the existing development.
5) 50-24 (Parking) - Project provides a total of 268 parking spaces, 51 in the London Rd surface lot, 8 along South Street (assuming the vacation is approved), and the remaining 209 inside the structure. This does not exceed maximum off-street parking limits.
6) 50-25 (Landscaping) - Site is required to provide street frontage landscaping of 15 feet along London Road and 10 feet along 21st and 22nd Avenues E. The landscaping plan meets the interior lot landscaping and tree canopy coverage requirements, but does not meet the street frontage landscaping. The tree preservation plan has been reviewed and approved by the City Forester. City Engineering does not wish to have trees planted over its gas lines (along London, and 22nd).
7) 50-26 (Screening) - The applicant is planning on having no exterior mechanical equipment, and dumpsters will be interior.
8) 50-27 (Signs) - Any signs will need to apply for and receive a sign permit prior to installation.
9) 50-29 (Sustainability) - This development triggers sustainability standards, but the applicant will submit that information with the building permit (the applicant is still weighing different construction/material options).
10) 50-30 (Building Design Standards) - The applicant has submitted documentation on how they plan on meeting the standards.
11) 50-31 (Exterior Lighting) - Applicant submitted a photometric plans for the site that conforms to the code.
12) No public, City or agency comments were received (other than related to stormwater and utilities referenced in this review).

Staff Recommendation (include Planning Commission findings, i.e., recommend to approve):

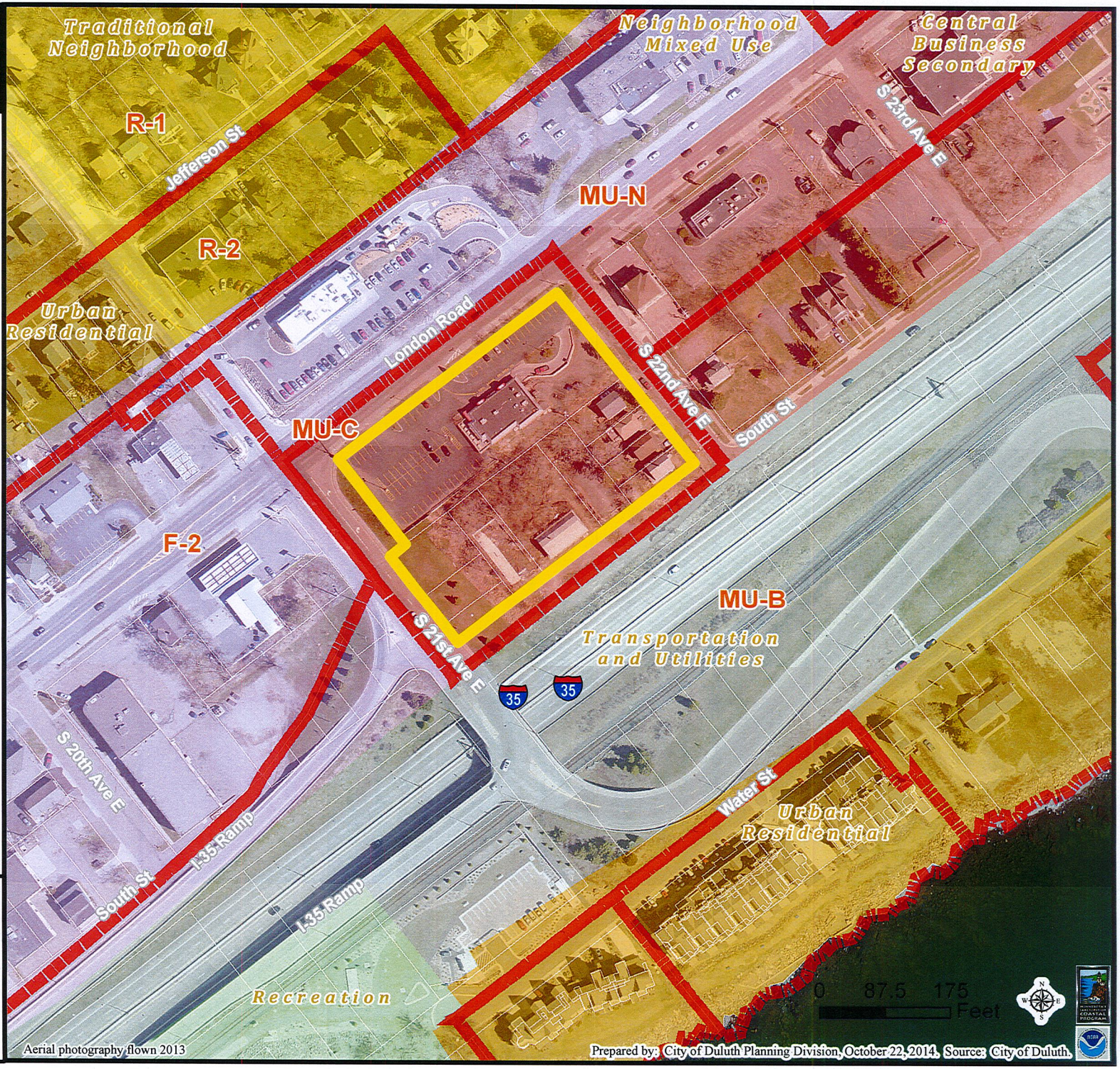
Based on the above findings, Staff recommends that Planning Commission approve the MU-C Planning Review application, with the following conditions:
1) Project constructed in conformance with the site plans submitted with the application.
2) Project shall address stormwater requirements and meet all applicable stormwater regulations.
3) Landscaping plan shall be revised to provide required street frontage landscaping, or receive approval from the Land Use Supervisor for an Alternative Landscaping Plan that provides the same degree of landscaping, or better than, required in 50-25.
4) Traffic study approved by the City Engineering
5) Applicant seek, and receive, vacation of right of way as indicated on plans. If the vacations are not approved, the applicant will submit a revised MU-C Planning Review application indicating development around the right of way and easements.
6) Any alterations to the approved plans that do not alter major elements of the plan may be approved by the Land Use Supervisor without further Planning Commission approval; however, no such administrative approval shall constitute a variance from the provisions of Chapter 50.
Per UDC 50-37.1.N, an approved Planning Review will expire if the project or activity authorized is not begun within 1 year.

6-2

Attachments (aerial photo with zoning; future land use map; site plan; copies of correspondence)

City Planning

PL 14-155
21st Avenue E & London Rd

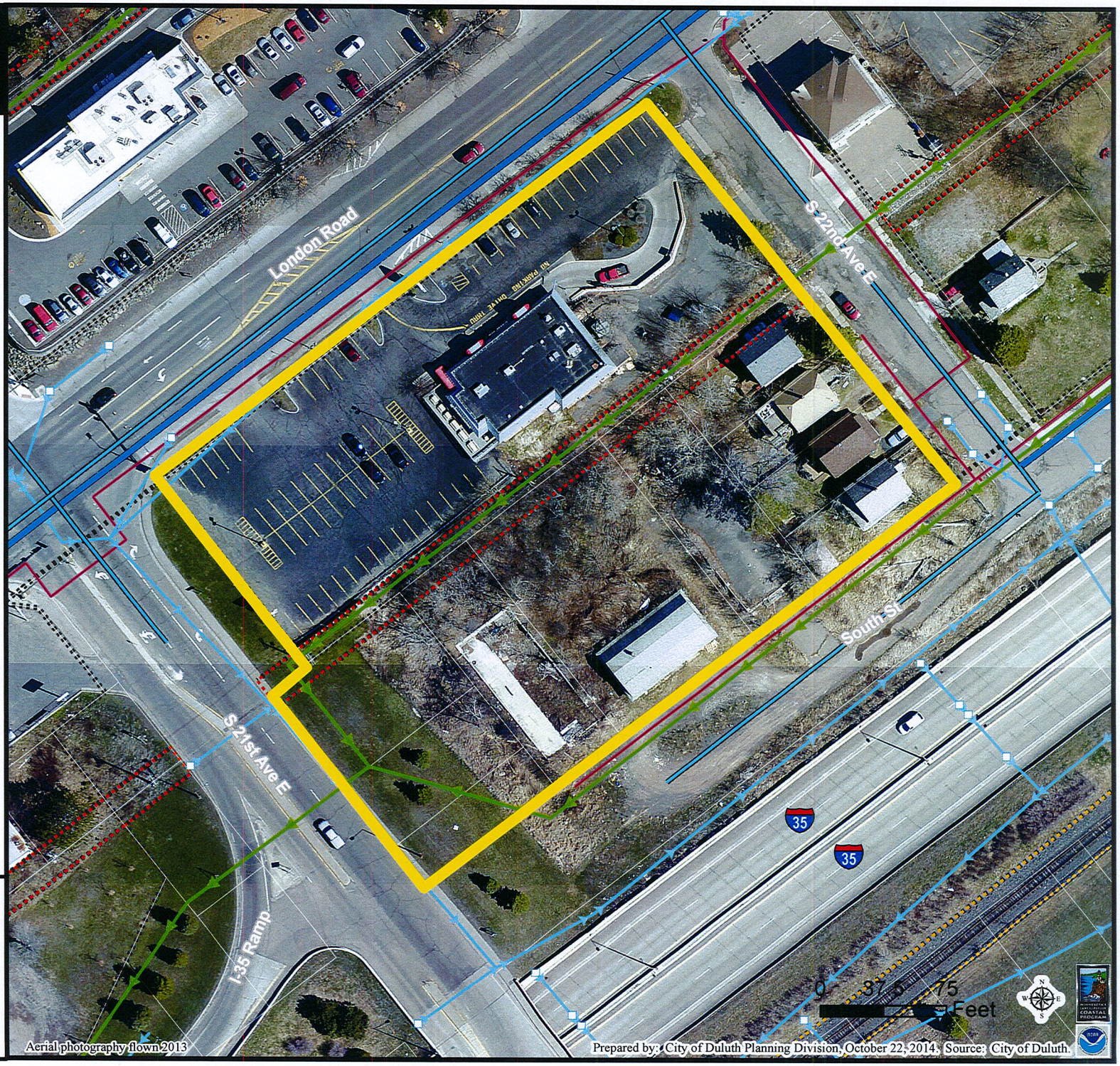


Legend

C-3

City Planning

PL 14-155
21st Avenue E & London Rd



Legend

- Trout Stream (GPS)
- Other Stream (GPS)
- Utility Easement
- Other Easement
- Vacated ROW
- Road or Alley ROW

Water Distribution System

- 30 - 60" Water Pipe
- 16 - 24" Water Pipe
- 4 - 6" Water Pipe

Network Structure

- Storage Basin
- Pump Station

Sanitary Sewer Collection System

- Sanitary Sewer Collector
- Sanitary Sewer Interceptor
- Sanitary Sewer Forced Main
- Storm Sewer Catch Basin

Subtype

- Storm Sewer Pipe

Gas Distribution Main

Nominal Diameter

- 8" - 16" Gas Pipes
- 4" - 6" Gas Pipes
- 0" - 4" Gas Pipes

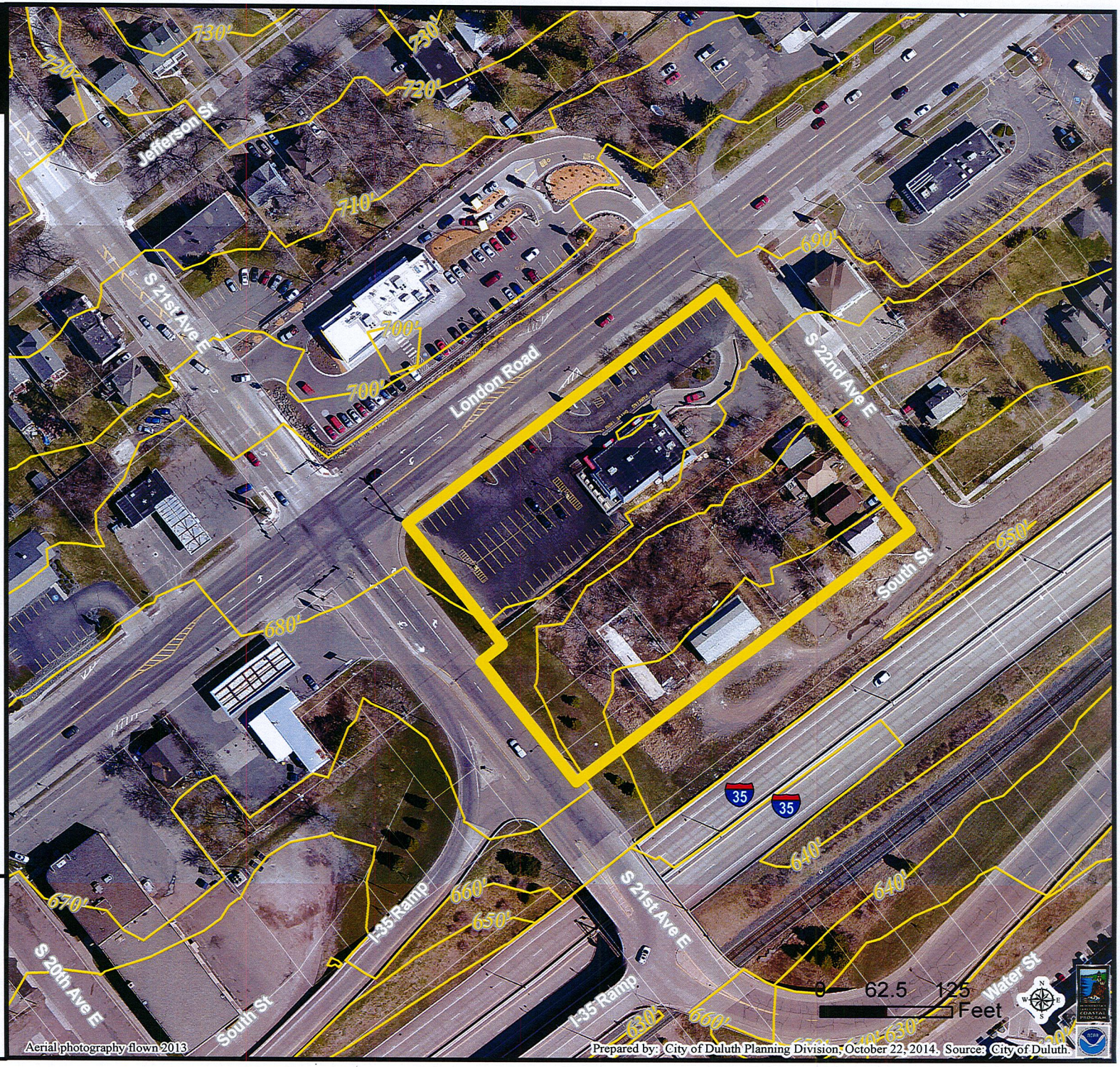
Floodplain (UDC)

- General Flood Plain
- Flood Way
- Flood Fringe

G-4

City Planning

PL 14-155
21st Avenue E & London Rd



Legend

The City of Duluth has tried to ensure that the information contained in this map or electronic document is accurate. The City of Duluth makes no warranty or guarantee concerning the accuracy or reliability. This drawing/data is neither a legally recorded map nor a survey and is not intended to be used as one. The drawing/data is a compilation of records, information and data located in various City, County and State offices and other sources affecting the area shown and is to be used for reference purposes only. The City of Duluth shall not be liable for errors contained within this data provided or for any damages in connection with the use of this information contained within.

C-5

G-6

HARBOR BAY REAL ESTATE ADVISORS

October 10, 2014

Planning Division
City Hall, Room 208
411 West First Street
Duluth, MN 55802

RE: **21st Ave E & London Road Development**
Duluth, MN

Dear Sir / Madam,

On behalf of Harbor Bay Real Estate Advisors Real Estate Advisors, enclosed please find our Planning Review submission for a proposed mixed-use development located at the intersection of 21st Ave E and London Road in Duluth. We have thoroughly enjoyed working with members of staff at the City of Duluth. Our goal is to create a "best in class", mixed-use development, which will provide the City of Duluth an exciting and unique housing and retail opportunity.

The proposed development contains approximately 148 market-rate multifamily units and approximately 12,900 square feet of retail. Residences will be a mix of studios, 1-bedrooms and 2-bedrooms. Approximately 267 parking stalls will be provided in the enclosed lower level garage and surface parking areas.

Key elements of the development will include:

- Superior architecture & design, which will preserve site lines to Lake Superior and provide the City of Duluth a "signature" housing development
- Thoughtful landscaping throughout the development
- An outdoor, private amenity deck with outdoor seating and fire pits, grilling stations, outdoor yoga platform and spectacular views of Lake Superior
- Patio & plaza areas outside the retail spaces
- Amenities within the building such as: club room, indoor bike storage and maintenance room, fitness room, concierge, multi-purpose lobby, outdoor dog walk and more.
- New retail users which will provide services, goods and amenities to residents and the general public
- Easy access to Lakewalk, downtown, Canal Park and Brighton Beach
- Convenient parking for both retail and residents

Aside from the above-mentioned attributes, we have proactively been in discussions with both MNDOT, as well as MN Power, in order to tactfully plan our construction. MN Power's distribution engineering staff is currently working on a re-route plan for the existing overhead power line running thru an alley easement on our site. MN Power has stated that they will not object to the vacation of the alley right-of-way, provided the developer pays all relocation costs, something we are willing and prepared to do.

6-7

In addition, our development will require the conveyance of a MNDOT owned parcel (Lot 15 of the subject block), as well as an additional parcel. MNDOT has been supportive of the development thus far and has agreed to transfer Lot 15 to DEDA and then DEDA would convey the property to Harbor Bay. The additional parcel is a 33' right-of-way on the north half of South Street adjacent to I-35W. Our development requires 18' of this right-of-way. Research is currently being done by the City of Duluth to determine ownership. Regardless of ownership (City or MNDOT), we will work proactively and positively to obtain the necessary property for our development.

We are confident that the proposed development will provide a distinguished, and new lifestyle opportunity for existing and future residents of Duluth. We sincerely thank everyone at the Planning Department for their help and consistent accessibility thus far on our project. We are eager to continue to work with you and everyone at the City of Duluth.

Thank you for your review and consideration.

Respectfully submitted,

Mark J. Bell
Co-Founder, Principal
Harbor Bay Real Estate Advisors

Thomas F. Lund
Co-Founder, Principal
Harbor Bay Real Estate Advisors

8-6

LEGAL DESCRIPTION PER TITLE COMMITMENT NO. T-61637

Lots One (1), Two (2), Three (3), Four (4), Five (5), Six (6), Seven (7), and Eight (8), Block Twenty-five (25), ENDION DIVISION OF DULUTH, EXCEPT that part of Lot One (1), Block Twenty-five, ENDION DIVISION OF DULUTH, which lies southwesterly of the line described as: beginning at a point on the northwesterly line of Lot One (1), distant 30 feet northeasterly of the most westerly corner thereof; thence run southeasterly to a point on the southeasterly line of said Lot One (1), distant 30 feet northeasterly of the most southerly corner thereof and there terminating.

LEGAL DESCRIPTION PER TITLE COMMITMENT NO. T-61652

Northerly Forty-five (Nly 45) feet of Lots Nine (9) and Ten (10), Block Twenty- five (25), ENDION DIVISION OF DULUTH.

LEGAL DESCRIPTION PER TITLE COMMITMENT NO. T-61654

PARCEL I: Southerly Thirty-five feet (S'ly 35') of the Northerly Eighty feet (N'ly 80') of Lots Nine (9) and Ten (10), Block Twenty-five (25), ENDION DIVISION OF DULUTH.

PARCEL II: The Southerly Thirty-five feet (S'ly 35') of Lots Nine (9) and Ten (10), Block Twenty-five (25), ENDION DIVISION OF DULUTH.

PARCEL III: Lot Eleven (11), Block Twenty-five (25), ENDION DIVISION OF DULUTH.

PARCEL IV: Lots Twelve (12) and Thirteen (13), Block Twenty-five (25), ENDION DIVISION OF DULUTH.

PARCEL V: Lot Fourteen (14), Block Twenty-five (25), ENDION DIVISION OF DULUTH.

LEGAL DESCRIPTION PER TITLE COMMITMENT NO. T-61656

The Southerly Thirty-five (35) feet of the Northerly One Hundred-fifteen (115) feet of Lots Nine (9) and Ten (10), Block Twenty-five (25), ENDION DIVISION OF DULUTH.

LEGAL DESCRIPTION

Lot 15, Block 25, ENDION DIVISION OF DULUTH

AND:

That part of the North 1/2 of South Street, as dedicated on the recorded plat of ENDION DIVISION OF DULUTH, lying Easterly of the Southerly extension of the Westerly line of Lot 15, Block 25, said ENDION DIVISION OF DULUTH and lying Westerly of the Southerly extension of the Easterly line of Block 25, said ENDION DIVISION OF DULUTH.

G-9

ALTA/ACSM LAND TITLE SURVEY

LEGEND

These standard symbols will be found in the drawing.

- GRAVEL
- EXISTING BUILDING
- BITUMINOUS
- CONCRETE
- SET REBAR RLS 14374
- GAS METER/SERVICE
- HYDRANT
- WATER VALVE
- PVC VENT
- TRAF SIGNAL
- SIGN
- LIGHT POLE
- FND SURVEY PIN
- TREE
- MANHOLE
- CULVERT
- UTILITY POLE
- CATCH BASIN
- STORM MANHOLE
- SAN MANHOLE
- SANITARY LINE
- WATER LINE
- STORM LINE
- OVERHEAD UTILITIES
- UNDERGROUND GAS
- UNDERGROUND ELECTRIC
- RET WALL
- FENCE LINE
- GUARD RAIL

LEGAL DESCRIPTION PER TITLE COMMITMENT NO. T-61637

Lots One (1), Two (2), Three (3), Four (4), Five (5), Six (6), Seven (7), and Eight (8), Block Twenty-five (25), ENDION DIVISION OF DULUTH, EXCEPT that part of Lot One (1), Block Twenty-five, ENDION DIVISION OF DULUTH, which lies southwesterly of the line described as: beginning at a point on the northwesterly line of Lot One (1), distant 30 feet northeasterly of the most westerly corner thereof; thence run southeasterly to a point on the southeasterly line of said Lot One (1), distant 30 feet northeasterly of the most southerly corner thereof and there terminating.

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ZONING CLASSIFICATION FOR 521, 523, 525 AND 527 22ND AVE E, 2111 & 2115 SOUTH ST LOT 11, BLK 25

MU-B MIXED USE-BUSINESS PARK

SETBACK LINES

FRONT YARD- 25 FT OR LARGER OF 10 FT OR 10% OF LOT DEPTH
SIDE YARD-6 FT ADJACENT TO RESIDENTIAL USE OR 0 FT GENERAL
REAR YARD- 10 FT ADJACENT TO RESIDENTIAL USE OR 0 FT GENERAL

MAXIMUM HEIGHT OF STRUCTURE- 60 FT GENERAL
WITHIN 200 FT OF R-1 DISTRICT- 35 FT
WITHIN 200 FT OF R-2 DISTRICT- 50 FT

ZONING AND SETBACK INFORMATION PROVIDED BY THE CITY OF DULUTH PLANNING AND BUILDING INSPECTIONS.

ZONING CLASSIFICATION FOR 2120 LONDON RD

MU-N MIXED USE NEIGHBORHOOD

SETBACK LINES

FRONT YARD- THE SMALLER OF 25 FT OR AVERAGE OF ADJACENT DEVELOPED LOTS FACING THE SAME STREET
SIDE YARD- 15 FT NON-RESIDENTIAL USE ADJACENT TO RESIDENTIAL DISTRICT
SIDE YARD- 0 FT NON-RESIDENTIAL USE ADJACENT TO NON-RESIDENTIAL DISTRICT
SIDE YARD- 10 FT MULTI-FAMILY ADJACENT TO SINGLE-FAMILY DISTRICT
SIDE YARD- 0 FT MULTI-FAMILY ADJACENT TO MUTI-FAMILY DISTRICT
REAR YARD- 25 FT

MAXIMUM HEIGHT OF STRUCTURE
NON-RESIDENTIAL USE- 35 FT
RESIDENTIAL OR MIXED USE- 75 FT
RESIDENTIAL OR MIXED USE WITHIN 200 FT OF R-1- 35 FT
RESIDENTIAL OR MIXED USE WITHIN 200 FT OF R-2- 50 FT

ZONING AND SETBACK INFORMATION PROVIDED BY THE CITY OF DULUTH PLANNING AND BUILDING INSPECTIONS.

TOTAL PROPERTY AREA

116210.2 Sq. Feet
2.7 Acres

FLOOD ZONE INFORMATION

BUILDING LIES IN FLOOD ZONE C (AREAS OF MINIMAL FLOODING) PER FLOOD ZONE MAP FOR THE CITY OF DULUTH PANEL NUMBER 270421 0025 C APRIL 2, 1982

NOTES

BEARINGS ARE BASED ON THE ST. LOUIS COUNTY TRANSVERSE MERCATOR COORDINATE SYSTEM OF 1996.

BUILDING DIMENSIONS SHOWN ARE FOR HORIZONTAL & VERTICAL PLACEMENT OF STRUCTURE ONLY.

SEE ARCHITECTURAL PLAN FOR BUILDING & FOUNDATION DIMENSIONS.

DUE TO SNOW COVER ON THE GROUND SOME FEATURES MAY NOT HAVE BEEN VISIBLE FOR THE FIELD WORK COMPLETED DECEMBER 26, 2012.

THERE IS NO OBSERVABLE EVIDENCE THAT THIS SITE HAS BEEN A SOLID WASTE DUMP OR SANITARY LANDFILL.

NO RECENT EARTHWORK OR CONSTRUCTION HAS BEEN OBSERVED ON THE SITE.

VICINITY MAP
NO SCALE

To: LONDON ACQUISITON, LLC, a Minnesota limited liability company, The ATWATER GROUP, a Minnesota Corporation and OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY.

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2011 Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items, 1, 3, 4, 5, 6(a), 6(b), 8, 11(a), 16 of Table A thereof.

The field work was completed on December 26, 2012.

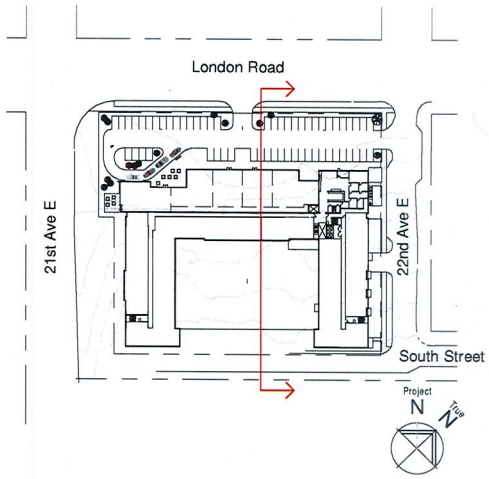
Dated of plat or Map: January 30, 2013

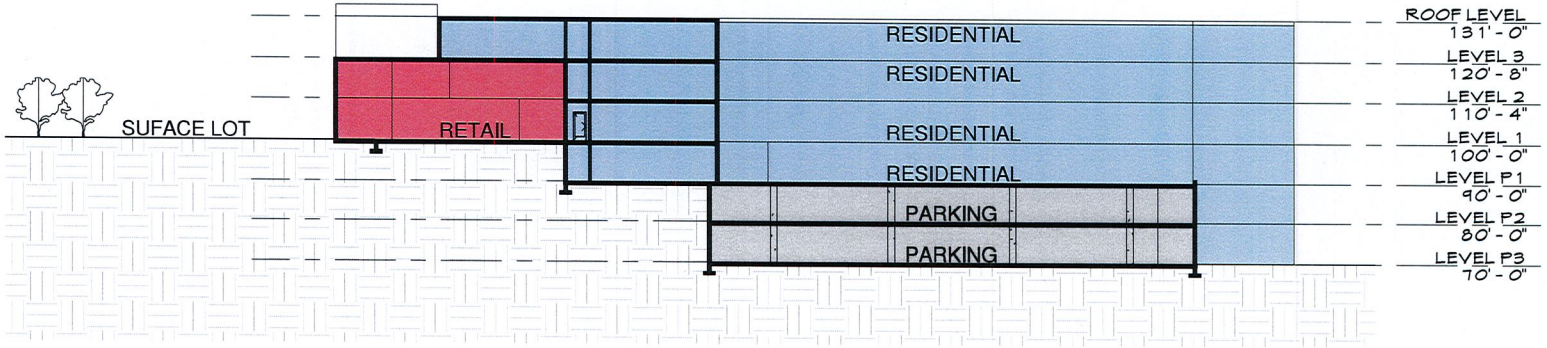
Ronald L. Krueger, PLS. #14374

ALTA
SURVEY COMPANY, INC.
Residential/Commercial Land Surveying-Land Developement-Legal Descriptions
P.O. BOX 161138 Duluth, MN 55806
Phone: 218-727-6211 Fax: 218-727-3798

REV: 1-30-13 (NEW LEGAL & DWG SHOW BILLBOARDS)
DATE: 1-2-13
SCALE: 1 IN = 30 FEET
PROJECT NO: 12-249

G-10





Diagrammatic Building Section

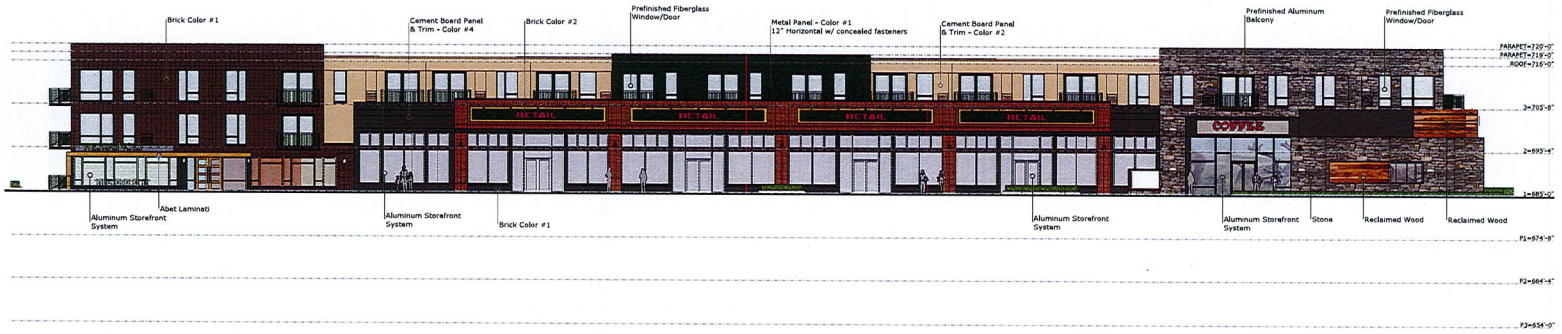
HARBOR BAY
REAL ESTATE ADVISORS

21st Ave. East and London Road Mixed Use Development

October 10, 2014

dsgw enriching communities through architecture

G-11



NORTH ELEVATION (NW)

EAST ELEVATION (NE)

0' 10' 25' 50

SCALE: 1"=10'-0"

HARBOR BAY

REAL ESTATE ADVISORS

G-12

21st Ave. East and London Road Mixed Use Development

October 10, 2014

dsgw enriching communities through architecture

COURTYARD WEST ELEVATION (SW)

COURTYARD EAST ELEVATION (NE)

0' 10' 25' 50

SCALE: 1"=10'-0"

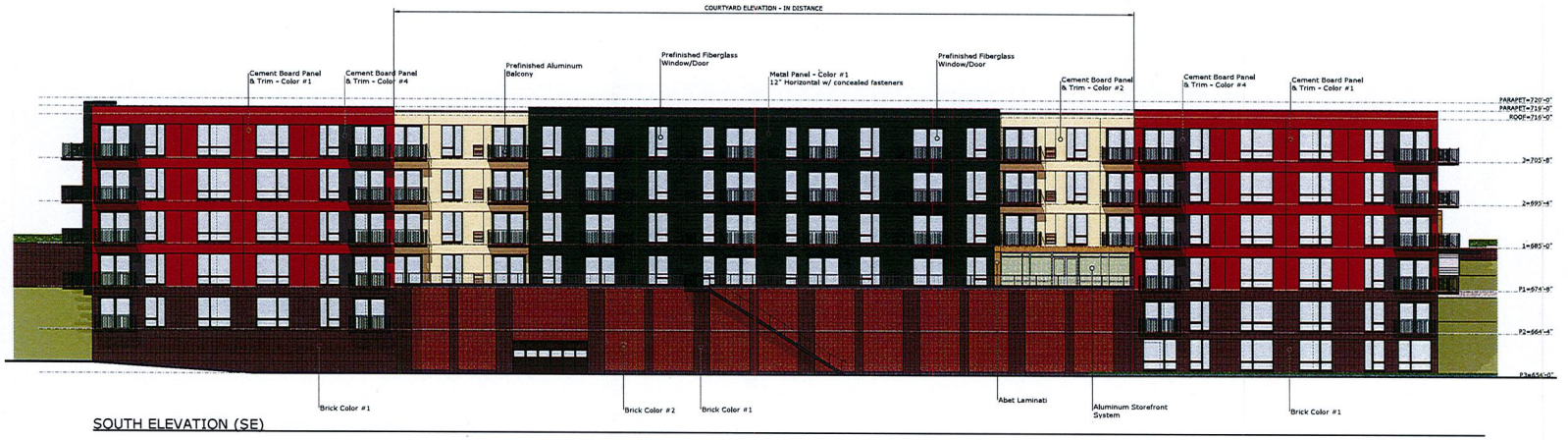
HARBOR BAY
REAL ESTATE ADVISORS

G-13

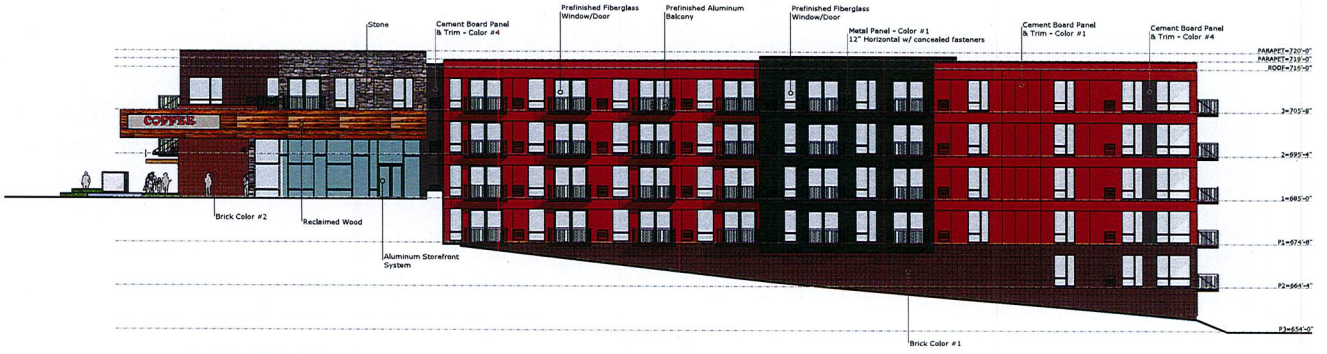
21st Ave. East and London Road Mixed Use Development

October 10, 2014

dsgw enriching communities through architecture



SOUTH ELEVATION (SE)



WEST ELEVATION (SW)

0' 10' 25' 50

SCALE: 1"=10'-0"

HARBOR BAY

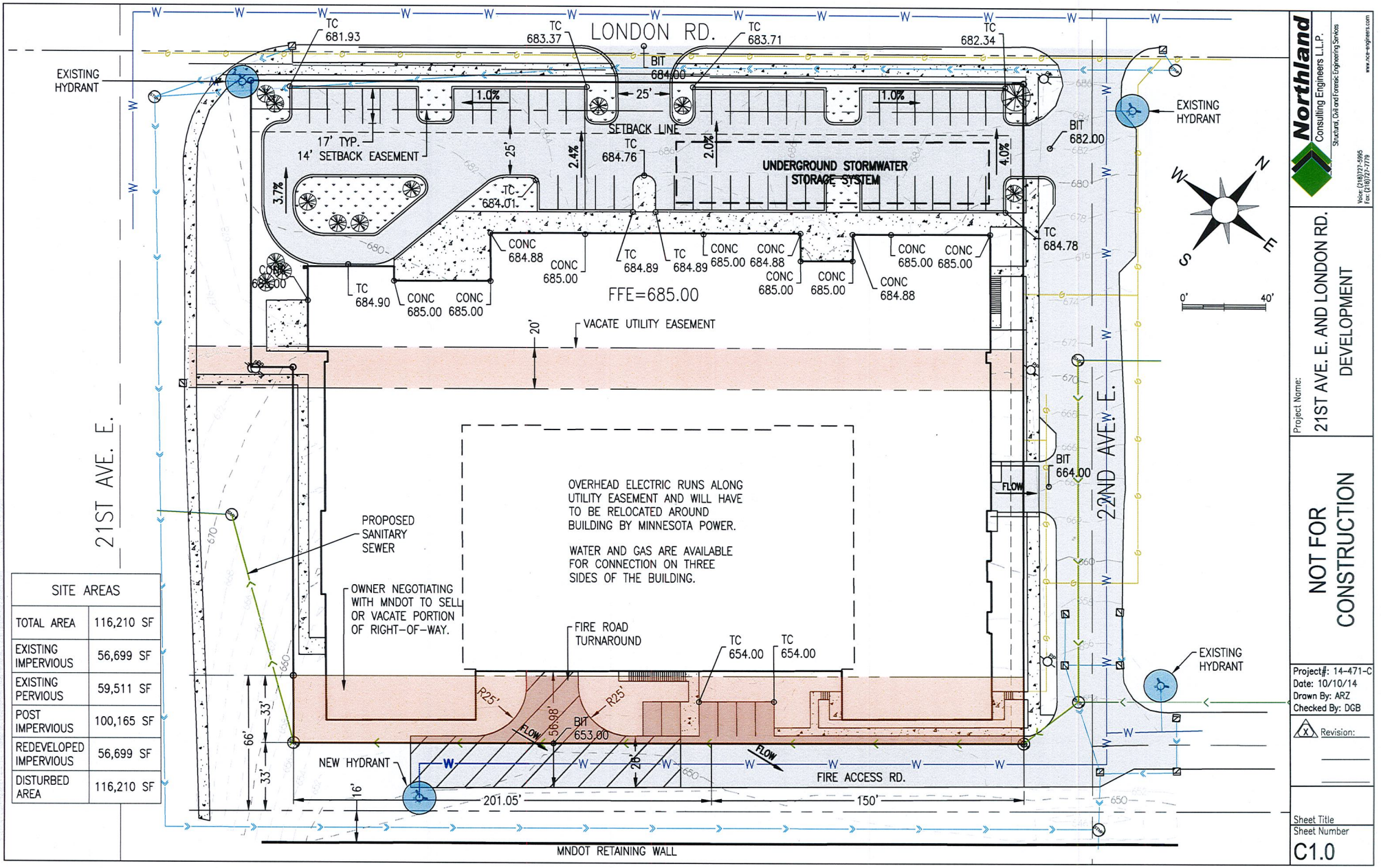
REAL ESTATE ADVISORS

G-14

21st Ave. East and London Road Mixed Use Development

October 10, 2014

dsgw enriching communities through architecture



SITE AREAS	
TOTAL AREA	116,210 SF
EXISTING IMPERVIOUS	56,699 SF
EXISTING PERVIOUS	59,511 SF
POST IMPERVIOUS	100,165 SF
REDEVELOPED IMPERVIOUS	56,699 SF
DISTURBED AREA	116,210 SF

Northland Consulting Engineers L.L.P.
Structural, Civil and Forensic Engineering Services
www.nce-engineers.com
Voice: (218)727-5995
Fax: (218)727-7779

Project Name: 21ST AVE. E. AND LONDON RD. DEVELOPMENT

NOT FOR CONSTRUCTION

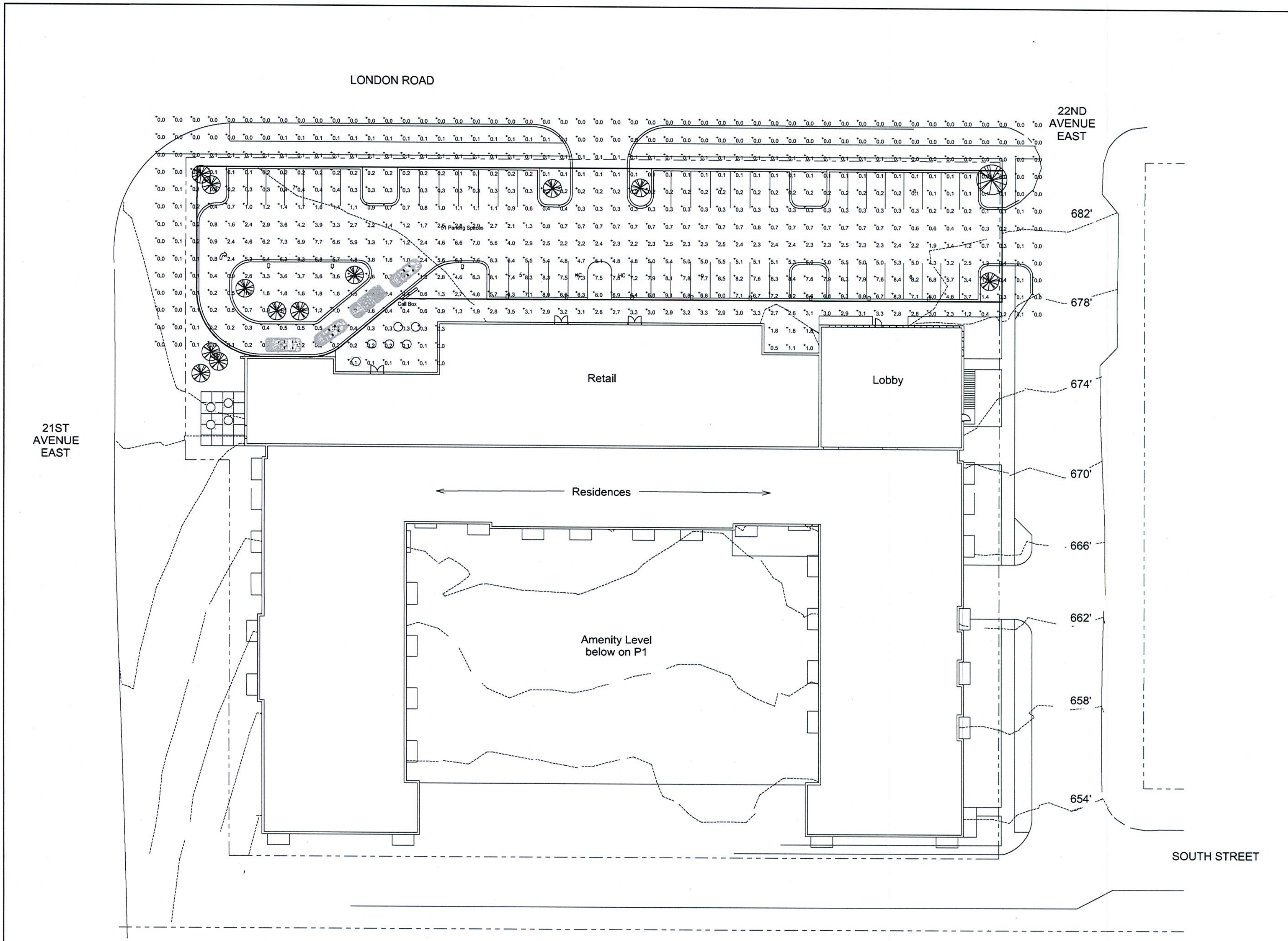
Project#: 14-471-C
Date: 10/10/14
Drawn By: ARZ
Checked By: DGB

Revision:

Sheet Title

Sheet Number
C1.0

G-15



G-16

HUNT
Electric Corporation
2300 Territorial Road
Saint Paul, MN 55114
(651) 646-2911
Fax (651) 643-6575

21st AND
LONDON RD.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

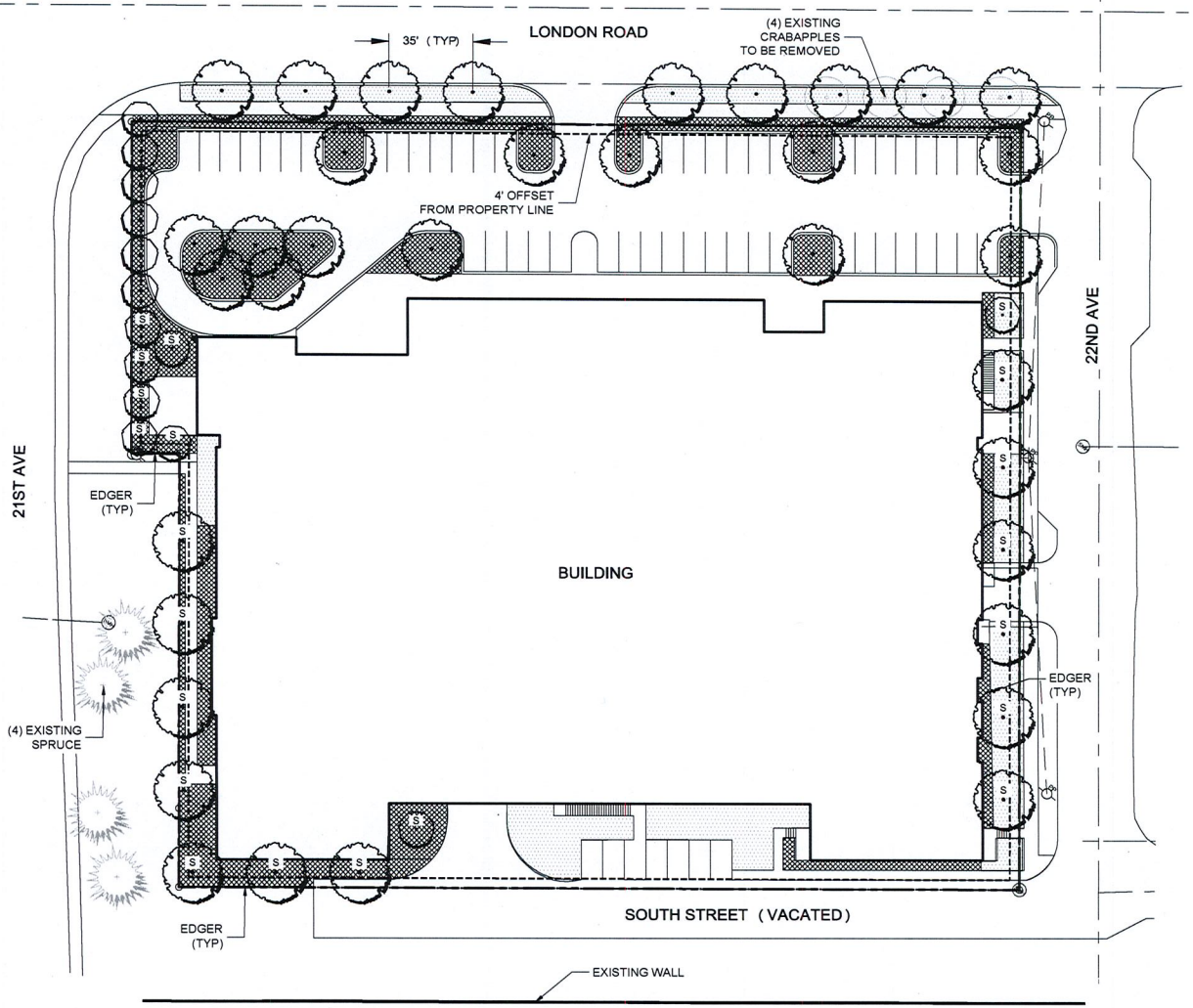
LICENSE # — DATE: 01.01.10

NO.	REVISION	DATE

LEVEL 1
PHOTOMETRIC PLAN

JOB NO: 59910PC
DATE: 10-08-2014
DRAWN: G.R.G.
CHECKED: —
SCALE: AS NOTED
SHEET:

HE-1



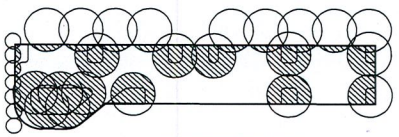
PRELIMINARY PLANTING PLAN

PRELIMINARY PLANT SCHEDULE				
SYMBOL	QTY	COMMON NAME	SIZE	ROOT
SIGNIFICANT TREE OVERSTORY DECIDUOUS	35	SWAMP WHITE OAK	2.5" CAL.	B & B
		ACCOLADE ELM	2.5" CAL.	B & B
		EASTERN REDBUD	2.5" CAL.	B & B
		RIVER BIRCH	2.5" CAL.	B & B
		BLACK WALNUT	2.5" CAL.	B & B
		QUAKING ASPEN	2.5" CAL.	B & B
SIGNIFICANT TREE UNDERSTORY DECIDUOUS	14	SPRING SNOW CRABAPPLE	2.5" CAL.	B & B
		REJOICE FLOWERING CRABAPPLE	2.5" CAL.	B & B
		MERRILL MAGNOLIA	2.5" CAL.	B & B
		HAWTHORNE	2.5" CAL.	B & B
SHRUB/ PERENNIAL MASSING	543	CURRANT	#5	CONT.
		HYDRANGEA	#5	CONT.
		DOGWOOD	#5	CONT.
		ROSE	#5	CONT.
		SPIREA	#5	CONT.
		NINEBARK	#5	CONT.
		KARL FOERSTER	#5	CONT.
		BLACK-EYED SUSAN	#5	CONT.
		CATMINT	#5	CONT.
TURF GRASS		SOD		

LANDSCAPE NOTES:

1. ALL SOD AREAS TO RECEIVE A MINIMUM OF 4" OF TOPSOIL . INSTALL LAWN SOD IN ALL DISTURBED AREAS UNLESS NOTED OTHERWISE.
2. ALL PLANTING AREAS SHALL BE COMPLETELY MULCHED WITH 4" OF DOUBLE SHREDDED HARDWOOD BARK MULCH ACQUIRED FROM A LOCAL SOURCE IN A SUSTAINABLE MANNER.
3. INSTALL 4" STEEL EDGER (BLACK) EVERYWHERE PLANTING BEDS ABUT SODDED AREAS.

CANOPY COVERAGE DIAGRAM



TOTAL PARKING AREA = **24,320 SF**
TOTAL CANOPY AREA = **14,150 SF**
TOTAL CANOPY COVERAGE = **58%**

TREE PRESERVATION REQUIREMENTS		
SPECIAL TREE	25.5" @ 50%	12.75" REQUIRED
SIGNIFICANT TREE	388.6" @ 10%	38.86" REQUIRED
TOTAL CALIPER INCHES REQUIRED		52"
TOTAL CALIPER INCHES PROPOSED		122.5"
NEW TREES DELINEATED AS 'SIGNIFICANT'		21

LINEAR STREET FRONTAGE REQUIREMENTS

GENERAL REQUIREMENT:
(1) TREE PER 35 FT OF LINEAR FRONTAGE
(1) SHRUB PER 25 FT OF LINEAR STREET FRONTAGE

SITE REQUIREMENTS:
TREES FOR 1,146 FT OF LINEAR FRONTAGE = 33 TREES
SHRUBS FOR 724 FT OF LINEAR STREET FRONTAGE = 29 SHRUBS

PROPOSED SITE:
33 TREES
29 SHRUBS/PERENNIALS

PARKING LOT BUFFER REQUIREMENTS

GENERAL REQUIREMENTS:
(3) SHRUBS PER 25 FT OF LINEAR PARKING LOT BUFFER

SITE REQUIREMENTS:
SHRUBS FOR 422 FT OF PARKING LOT BUFFER = 51 SHRUBS

PROPOSED SITE:
51 SHRUBS/PERENNIALS

INTERIOR PARKING LANDSCAPE REQUIREMENTS

GENERAL REQUIREMENT:
INTERIOR PARKING AREA IF 50+ SPACES= 15% OF AREA LANDSCAPED
300 SF OF INTERIOR LANDSCAPING= 1 TREE REQUIRED

SITE REQUIREMENTS:
24,320 SF OF INTERIOR PARKING AREA= 3,648 SF OF LANDSCAPED AREA
3,648 SF OF INTERIOR LANDSCAPING= 13 TREES REQUIRED

PROPOSED SITE:
463 SHURBS/PERENNIALS (24" O.C. PLANTS @ 50% BED COVERAGE)
13 TREES

NORTH
0 10 20 40 60
HORIZONTAL SCALE IN FEET

G-17

Plotted By: Workmon, Mitch Sheet Setup Layout: LandscapePlan-01 October 29, 2014 10:22:21am K:\TMC_LDEV\HARBOR BAY REAL ESTATE ADVISORS\CADD\Plan Sheets\PlanSheets\LandscapePlan-01.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

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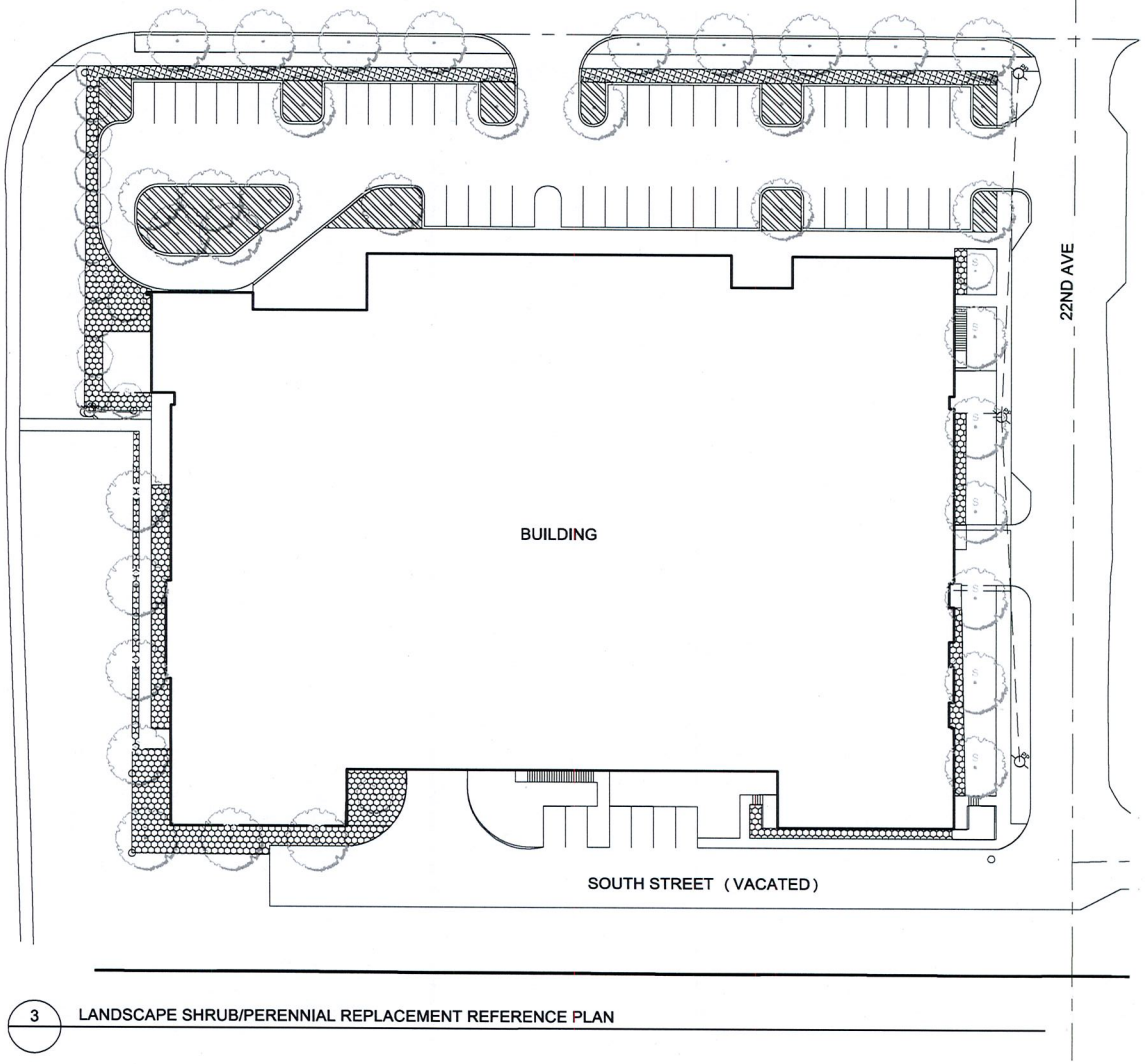
MN LICENSE NUMBER 24900
DATE: 10-29-2014

KHA PROJECT 160767000
DATE 10-29-2014
SCALE AS SHOWN
DESIGNED BY MJH
DRAWN BY MJH
CHECKED BY TPH

PRELIMINARY LANDSCAPE PLAN

21ST AND LONDON ROAD
PREPARED FOR
HARBOR BAY REAL ESTATE ADVISORS
DULUTH MN

SHEET NUMBER
01



3 LANDSCAPE SHRUB/PERENNIAL REPLACEMENT REFERENCE PLAN

SHRUB/PERENNIAL REPLACEMENT LEGEND

SYMBOL	QTY	COMMON NAME	SIZE	ROOT
SHRUB/PERENNIAL (BUFFER REQUIREMENTS)	51	CURRANT	#5	CONT.
		HYDRANGEA	#5	CONT.
		DOGWOOD	#5	CONT.
SHRUB/PERENNIAL (PARKING LOT SCREENING REQUIREMENTS)	463	ROSE	#5	CONT.
		SPIREA	#5	CONT.
		NINEBARK	#5	CONT.
SHRUB/PERENNIAL (LINEAR STREET FRONTAGE REQUIREMENTS)	29	KARL FOERSTER	#5	CONT.
		BLACK-EYED SUSAN	#5	CONT.
		CATMINT	#5	CONT.

NORTH

0 10 20 40 60

HORIZONTAL SCALE IN FEET

G-18

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No.	REVISIONS	DATE	BY

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MN LICENSE NUMBER 24900
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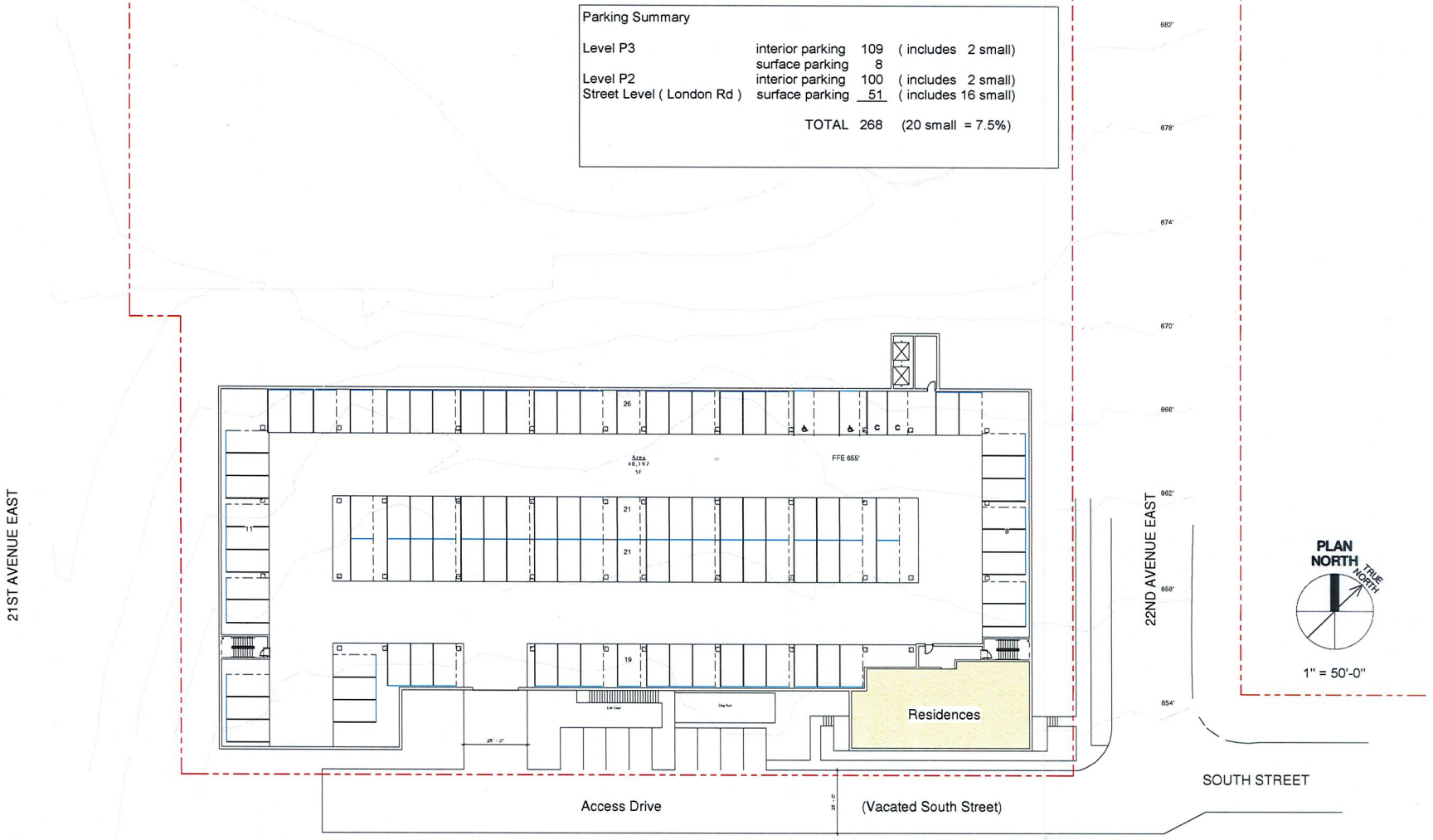
KHA PROJECT 160787000
DATE 10-29-2014
SCALE AS SHOWN
DESIGNED BY AJH
DRAWN BY AJH
CHECKED BY TPH

PRELIMINARY LANDSCAPE PLAN

21ST AND LONDON ROAD
PREPARED FOR
HARBOR BAY REAL ESTATE ADVISORS
DULUTH MN

SHEET NUMBER 02

Parking Summary			
Level P3	interior parking	109	(includes 2 small)
	surface parking	8	
Level P2	interior parking	100	(includes 2 small)
Street Level (London Rd)	surface parking	51	(includes 16 small)
	TOTAL	268	(20 small = 7.5%)



LEVEL P3 FLOOR PLAN

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21st Ave. East and London Road Mixed Use Development

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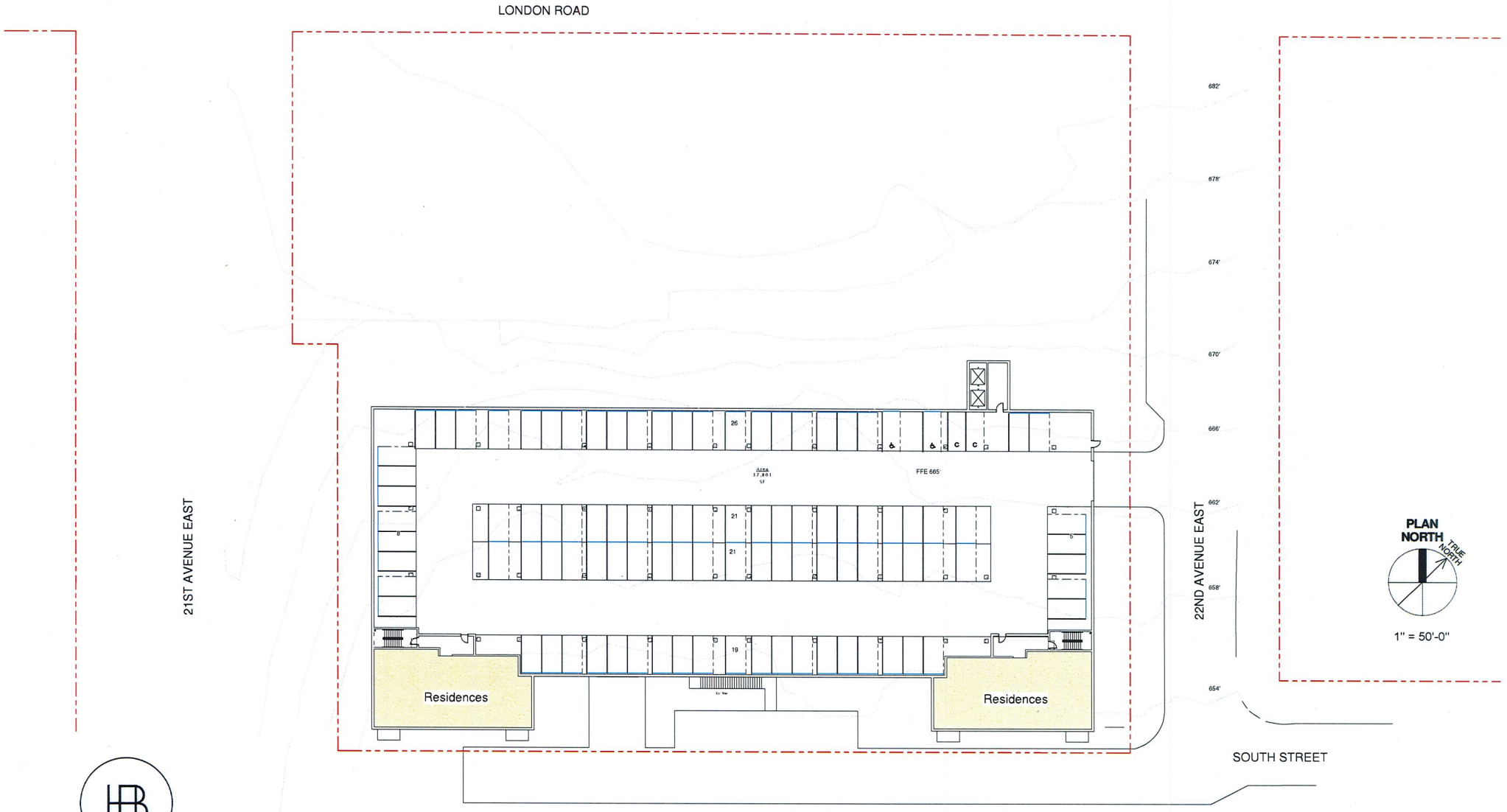

LEVEL P2 FLOOR PLAN

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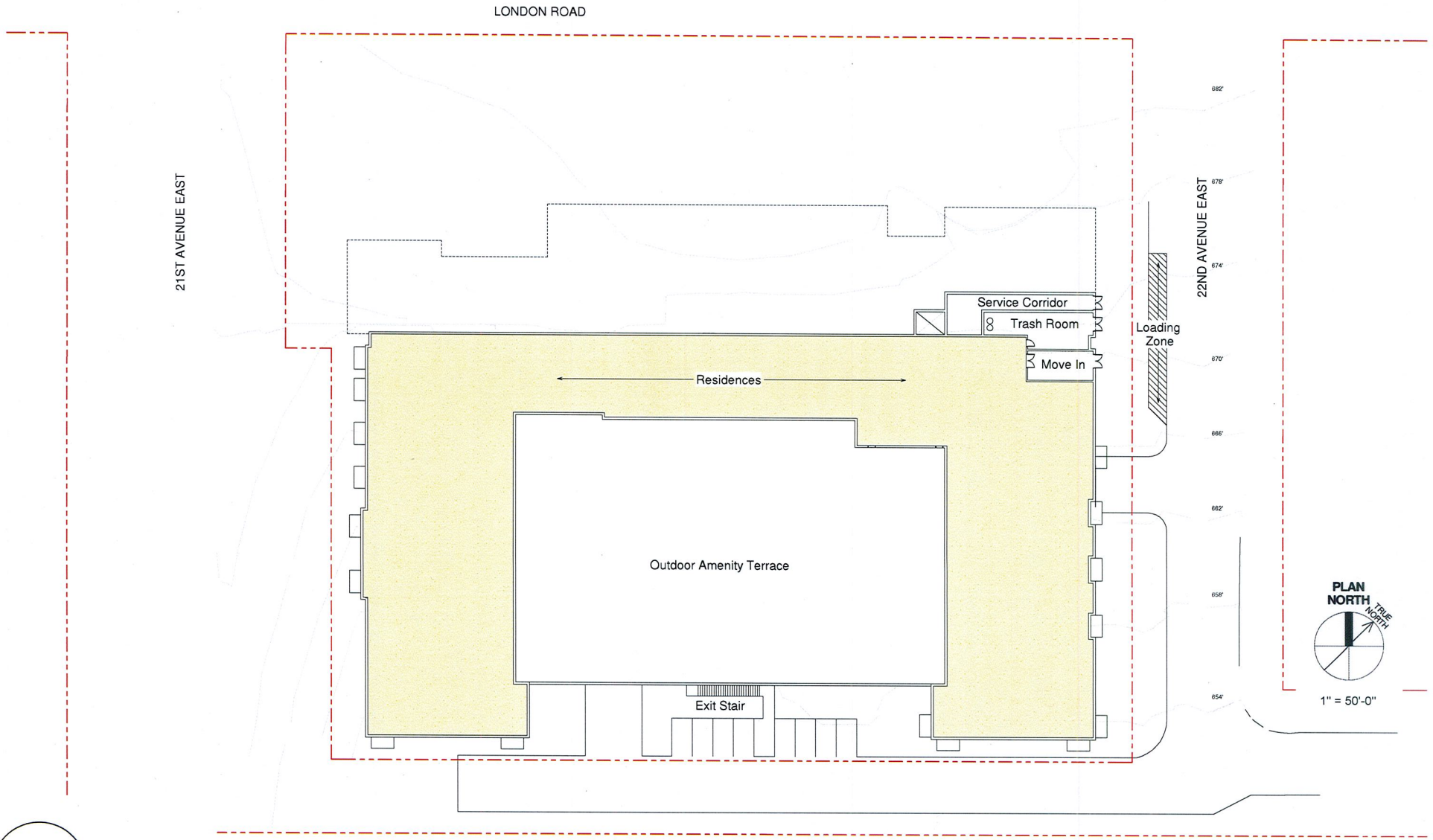

LEVEL P1 FLOOR PLAN

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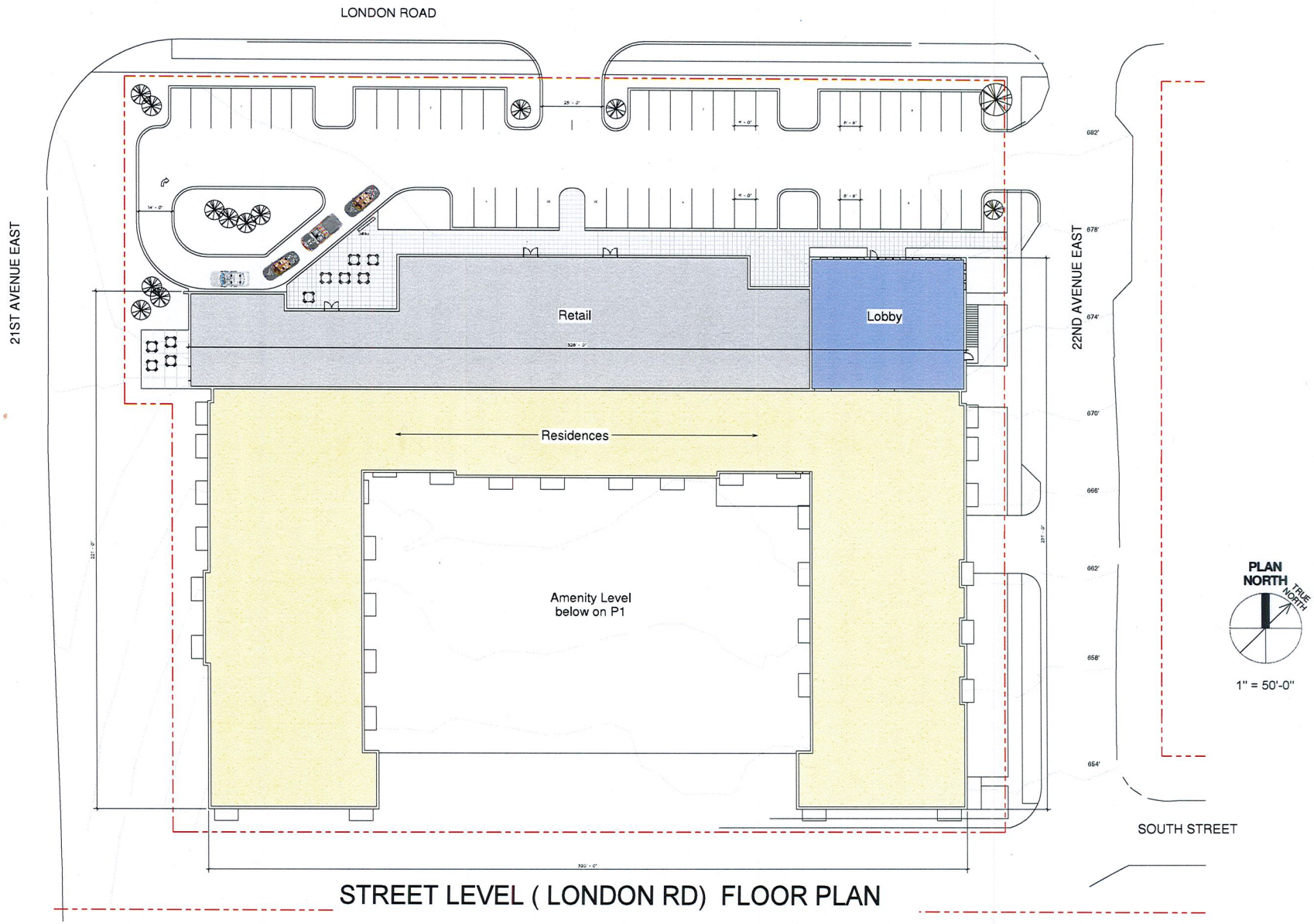

STREET LEVEL (LONDON RD) FLOOR PLAN

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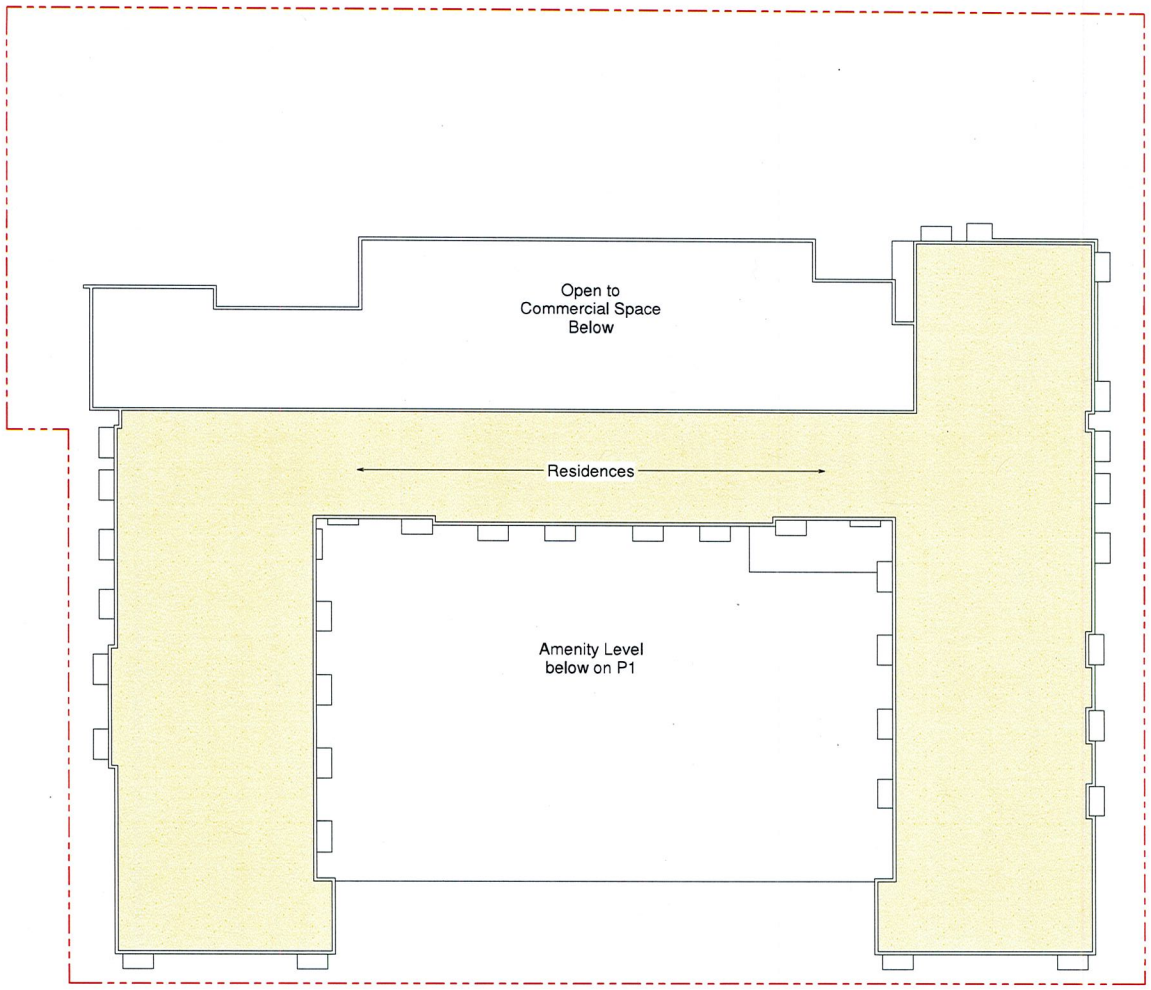
LONDON ROAD

21ST AVENUE EAST



22ND AVENUE EAST

PLAN NORTH
TRUE NORTH

1" = 50'-0"

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LEVEL 2 FLOOR PLAN

21st Ave. East and London Road Mixed Use Development

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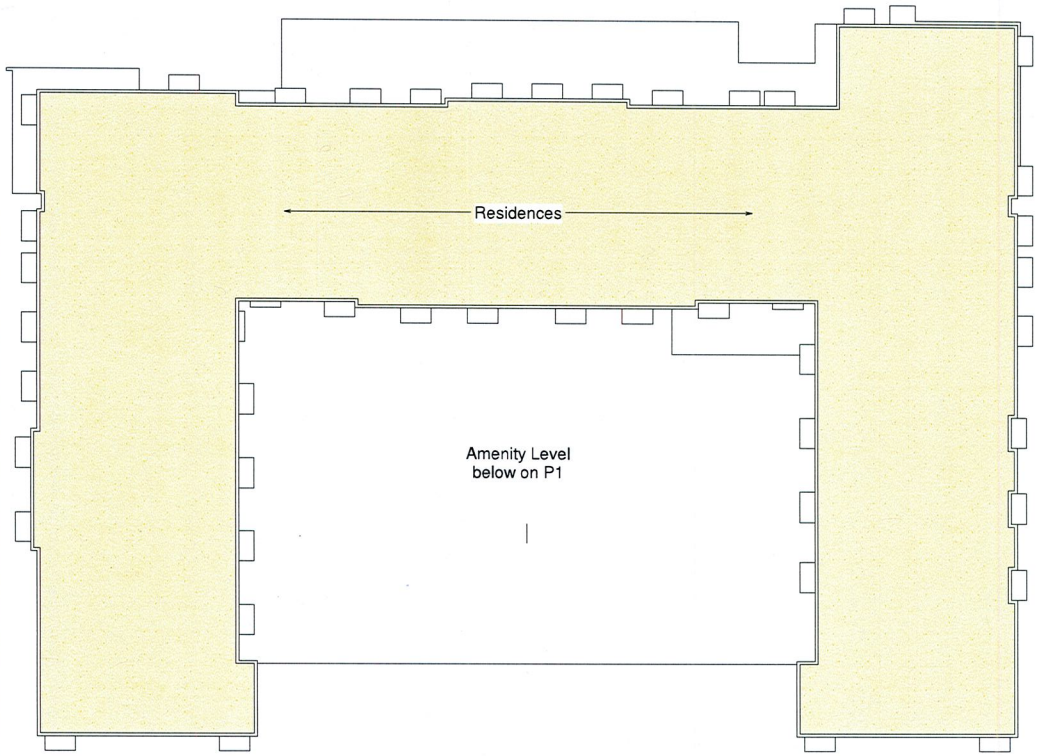
LONDON ROAD

21ST AVENUE EAST

22ND AVENUE EAST



PLAN NORTH

TRUE NORTH

1" = 50'-0"

LEVEL 3 FLOOR PLAN

21st Ave. East and London Road Mixed Use Development

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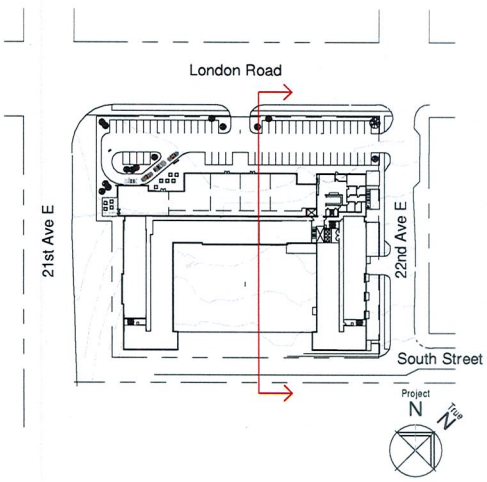

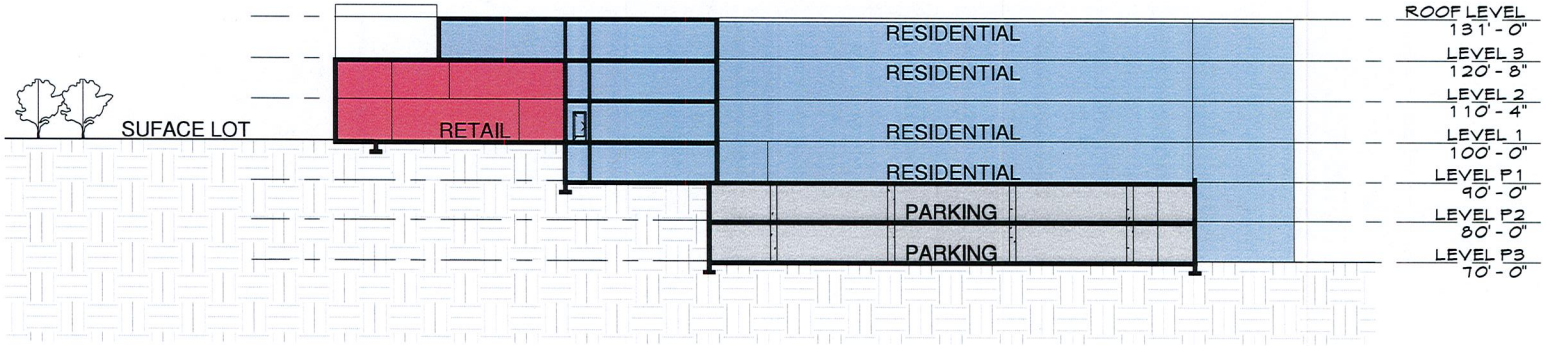

Diagrammatic Building Section

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21st Ave. East and London Road Mixed Use Development

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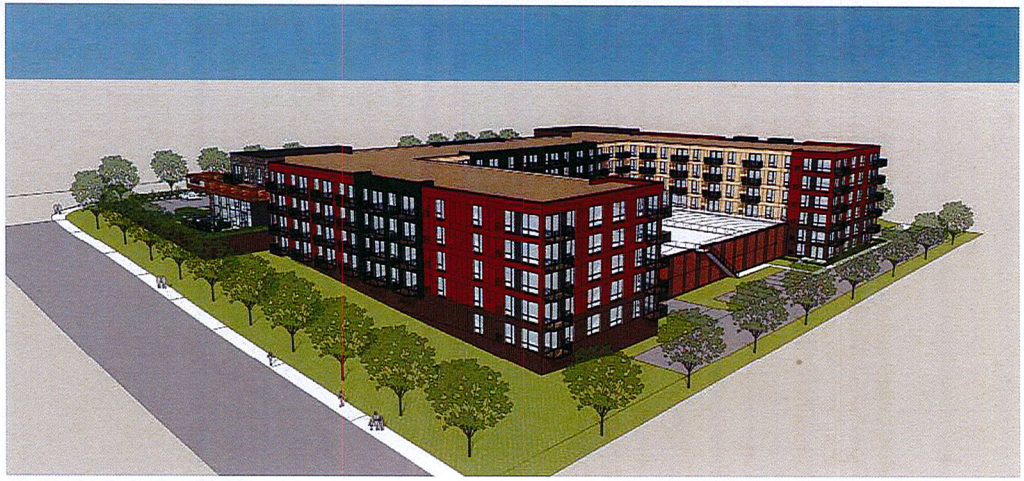
BIRDSEYE - NORTHEAST CORNER



BIRDSEYE - SOUTHWEST CORNER

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21st Ave. East and London Road Mixed Use Development

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PEDESTRIAN VIEW - NORTHEAST CORNER

PEDESTRIAN VIEW - NORTHWEST CORNER

PEDESTRIAN VIEW - RETAIL

PEDESTRIAN VIEW - SOUTHWEST CORNER

PEDESTRIAN VIEW - SOUTHEAST CORNER

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21st Ave. East and London Road Mixed Use Development

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G-28

SRF Consulting Group, Inc. | Engineers Planners Designers

Memorandum

SRF No. 014 08637

To: Mr. Mark Bell, Co-Founder/Principal
Harbor Bay Real Estate Advisors

From: Matt Pacyna, PE, Senior Associate
Joe DeVore, EIT, Engineer

Date: October 9, 2014

Subject: 21st Avenue E at London Road Traffic Impact Study
Duluth, Minnesota

Introduction

As requested, SRF Consulting Group, Inc. has completed a traffic impact study for the proposed mixed-use development located in the southeast corner of the 21st Avenue E/London Road intersection in Duluth, Minnesota (see Figure 1: Project Location). The main objective of this study is to evaluate the traffic impacts to the existing roadway system as a result of traffic generated by the proposed development and recommend any necessary improvements to maintain or improve operations. The following information provides the assumptions, analysis, and study recommendations offered for consideration.

Existing Conditions

The existing conditions were reviewed to establish a baseline to compare and determine any future impacts associated with the proposed development. The evaluation of existing conditions includes data collection, field observations, and an intersection capacity analysis.

Data Collection

Weekday a.m. and p.m. peak period turning movement counts were collected on September 25, 2014 at the following study intersections:

- 21st Avenue E/London Road
- 21st Avenue E/I-35 North Ramp
- 21st Avenue E/I-35 South Ramp
- 22nd Avenue E/London Road
- 22nd Avenue E/South Street

It should be noted that the driveways to the former Burger King were also reviewed, however no vehicles were identified using these access locations.

G-29

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SRF Consulting Group, Inc.

Study Area

21st Avenue E at London Road Traffic Impact Study
Duluth, MN

0148637
October 2014

Figure 1

6-30

Historical and year 2011 annual average daily traffic (AADT) volumes within the study area were provided by the Minnesota Department of Transportation (MnDOT). Year 2014 daily traffic volumes were estimated by applying a one percent annual background growth rate to the year 2011 daily volumes. This growth rate is consistent with historical volume trends in the area.

Observations

Field observations were completed to identify roadway characteristics within the study area (i.e. roadway geometry, posted speed limits, and traffic controls). Within the study area, London Road is a four-lane undivided roadway with select turn lanes, while 21st Avenue E is primarily a two-lane divided roadway with turn lanes. Both 22nd Street and South Street are two-lane undivided local roadways. The posted speed limit throughout the study area is 30 miles per hour (mph).

The London Road/21st Avenue E intersection is signalized, while the 21st Avenue E/I-35 South Ramp intersection is unsignalized with all-way stop control. The remaining study intersections are unsignalized with side-street stop control, except the 22nd Avenue E/South Street intersection, which is uncontrolled.

Intersection Capacity Analysis

An intersection operations analysis was conducted to determine how traffic is currently operating within the study area. All intersections were analyzed using the Synchro/SimTraffic software. Operations analysis results identify a Level of Service (LOS) which indicates how well an intersection is operating based on the average delay per vehicle. Intersections are given a ranking from LOS A through LOS F (see Table 1). LOS A indicates the best traffic operations, while LOS F indicates an intersection where demand exceeds capacity. In general, overall intersection LOS A through D is considered acceptable by drivers in Minnesota metropolitan areas.

Table 1. Level of Service Criteria for Signalized and Unsignalized Intersections

LOS Designation	Signalized Intersection Average Delay/Vehicle (seconds)	Unsignalized Intersection Average Delay/Vehicle (seconds)
A	<10	<10
B	10-20	10-15
C	20-35	15-25
D	35-55	25-35
E	55-80	35-50
F	80<	50<

For side-street stop controlled intersections, special emphasis is given to providing an estimate for the level of service of the side-street approach. Traffic operations at an unsignalized intersection with side-street stop control can be described in two ways. First, consideration is given to the overall intersection level of service. This takes into account the total number of vehicles entering the intersection and the capability of the intersection to support those volumes.

Second, it is important to consider the delay on the side-street approach. Since the mainline does not have to stop, the majority of delay is attributed to the side-street approaches. It is typical of intersections with higher mainline traffic volumes to experience high levels of delay (i.e., poor levels of service) on the side-street approaches, but an acceptable overall intersection level of service during peak hour conditions.

Results of the existing intersection capacity analysis shown in Table 2 indicate that all of the study intersections currently operate at an acceptable overall LOS C or better during the a.m. and p.m. peak hours with the existing geometric layout and traffic controls. The existing year 2014 conditions are summarized in Figure 2.

Table 2. Existing Conditions – Intersection Capacity Analysis

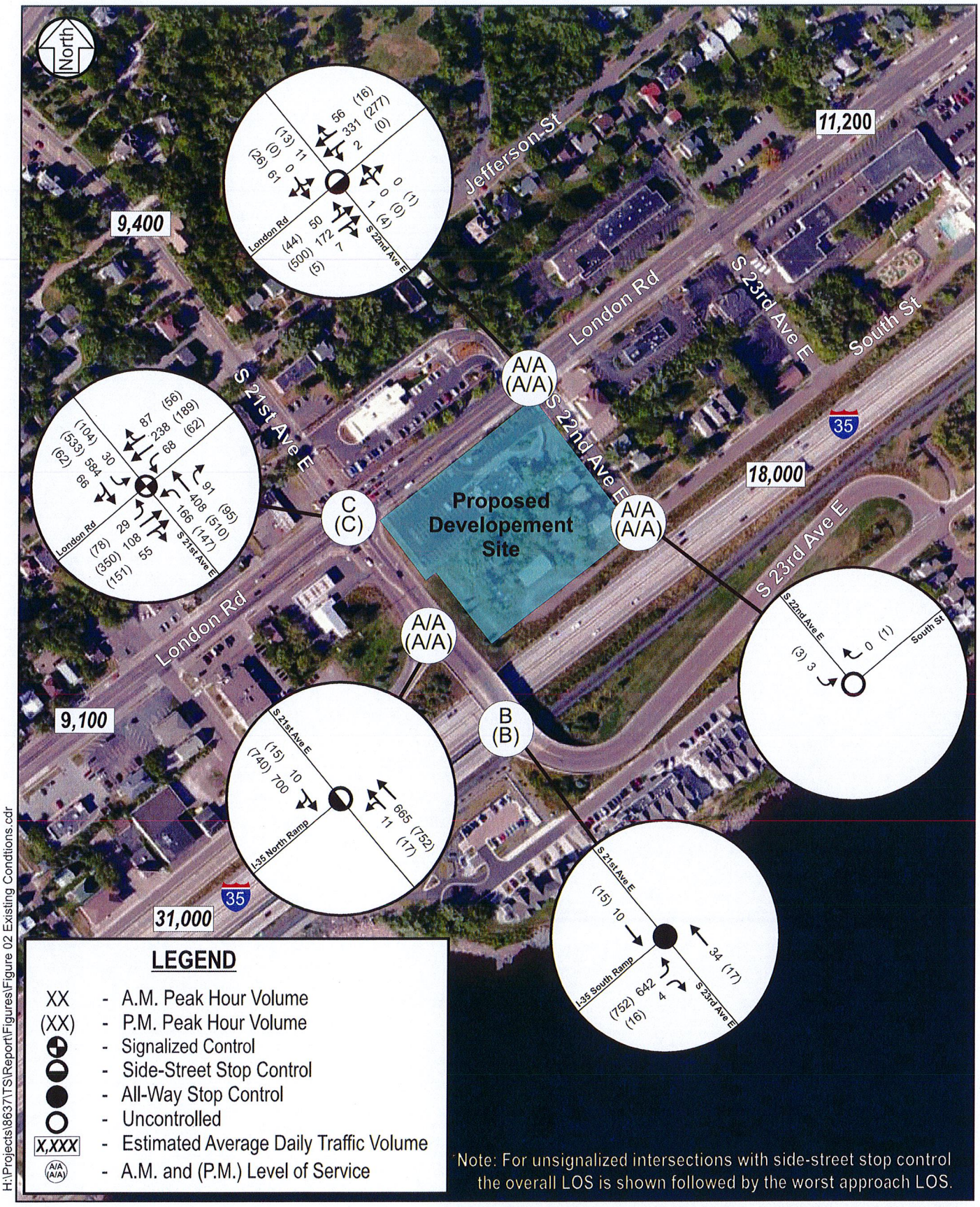
Intersection	Level of Service (Delay)	
	A.M. Peak Hour	P.M. Peak Hour
21st Avenue E/London Road	C (28 sec.)	C (28 sec.)
21st Avenue E/I-35 North Ramp(1)	A/A (4 sec.)	A/A (3 sec.)
21st Avenue E/I-35 South Ramp(2)	B (11 sec.)	B (12 sec.)
22nd Avenue E/London Road(1)	A/A (5 sec.)	A/A (9 sec.)
22nd Avenue E/South Street(1)	A/A (0 sec.)	A/A (0 sec.)

(1) Indicates an unsignalized intersection with side-street stop control where the overall LOS/delay is shown followed by the worst approach LOS/delay.

(2) Indicates an unsignalized intersection with all-way stop control.

Although the study intersections operate at an acceptable overall level of service, southbound queues at the 21st Avenue E/London Road intersection extend approximately 625 feet and 500 feet during the a.m. and p.m. peak hours, respectively. These queues have an impact to adjacent intersections to the north. However, no modifications to the signal timing or geometric layout were assumed to help quantify any development impacts under future conditions. No other delay or queuing issues were observed at the remaining study intersections. Detailed analysis results are provided in Attachment A.

G-32



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Existing Conditions

21st Avenue E at London Road Traffic Impact Study
Duluth, MN

0148623
October 2014

Figure 2

Year 2016 No Build Conditions

Construction of the proposed development is expected to be completed by the year 2015. Therefore a traffic analysis was completed for year 2016 no build conditions (i.e. one-year after opening) to establish operations prior to the proposed development.

Traffic Forecasts

To develop year 2016 background traffic forecasts a one percent annual growth rate was applied to the year 2014 daily and peak hour traffic volumes. This growth rate accounts for general background growth in the area. It should be noted that growth rates have varied in this area since 2007 based on MnDOT AADT volume. Therefore, the growth rate used provides a conservative estimate for future conditions.

Intersection Capacity Analysis

To determine if the existing roadway network can accommodate year 2016 no build traffic forecasts, a detailed traffic operations analysis was completed. The study intersections were once again analyzed using the Synchro/SimTraffic software. Results of the year 2016 no build intersection operations analysis shown in Table 3 indicate that all study intersections are expected to continue to operate at an acceptable overall LOS C or better during the a.m. and p.m. peak hours with the existing geometric layout and traffic controls. The year 2016 no build conditions are summarized in Figure 3.

Table 3. Year 2016 No Build Conditions – Intersection Capacity Analysis

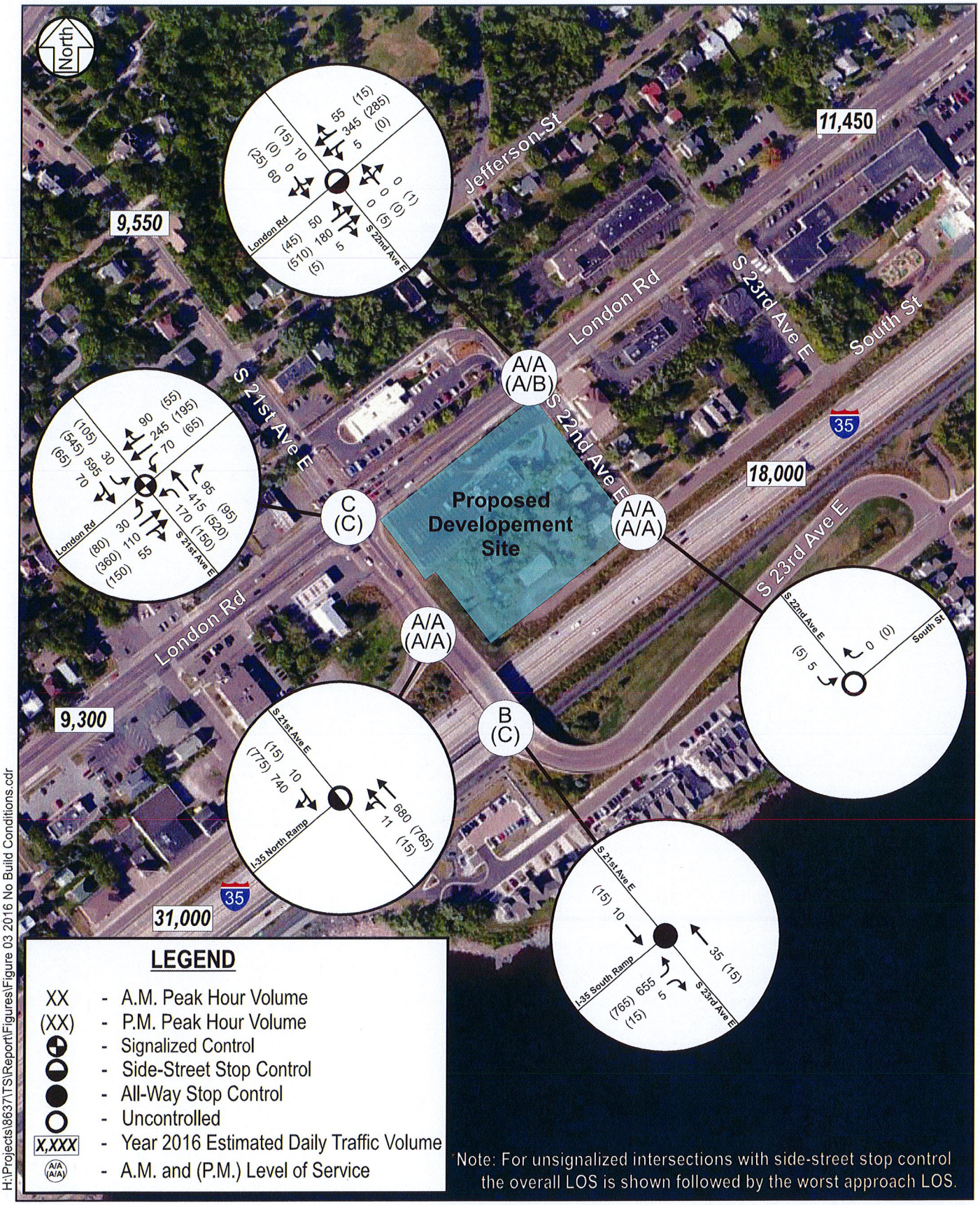
Intersection	Level of Service (Delay)	
	A.M. Peak Hour	P.M. Peak Hour
21st Avenue E/London Road	C (29 sec.)	C (31 sec.)
21st Avenue E/I-35 North Ramp(1)	A/A (4 sec.)	A/A (3 sec.)
21st Avenue E/I-35 South Ramp(2)	B (11 sec.)	C (16 sec.)
22nd Avenue E/London Road(1)	A/A (5 sec.)	A/B (13 sec.)
22nd Avenue E/South Street(1)	A/A (0 sec.)	A/A (0 sec.)

(1) Indicates an unsignalized intersection with side-street stop control where the overall LOS/delay is shown followed by the worst approach LOS/delay.

(2) Indicates an unsignalized intersection with all-way stop control.

The queuing issues identified at the 21st Avenue E/London Road intersection under existing conditions are expected to continue under year 2016 no build conditions. However, they are not expected to significantly change. Therefore, no modifications to the signal timing or geometric layout were assumed to help quantify any development impacts under future build conditions. It should be noted that the queuing issues could be improved with signal timing optimization. No other delays or queuing issues are expected. Detailed analysis results are provided in Attachment B.

G-34



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SRF Consulting Group, Inc.

Year 2016 No Build Conditions

21st Avenue E at London Road Traffic Impact Study
Duluth, MN

0148623
October 2014

Figure 3

G-35

Proposed Development

The proposed development is located in the southeast corner of the 21st Avenue E/London Road intersection. The project area is currently occupied by a former fast-food restaurant and four single-family homes. To provide a conservative estimate trips generated from the existing land uses were not removed from the roadway network since they generate such a small amount of traffic.

As currently proposed, the mixed-use development consists of a 153-unit luxury apartment complex with 12,000 square feet of retail space. Based on discussions with the developer, the proposed retail space was assumed to include a 4,000 square foot restaurant, a 1,500 square foot coffee shop, and 6,500 square feet of general retail space. Since retail tenants have not yet been secured for the development, the land use sizes and types may change slightly in the future.

While a site plan for the proposed development was not available at the time of this study, discussions with the developer indicate that two access locations are planned. The first access would be at the former fast-food restaurant access along London Road approximately 200 feet east of 21st Avenue E. This access would primarily serve the retail land uses. The second access would be located along 22nd Avenue E at the former fast-food restaurant access approximately 100 feet south of London Road. This access would serve the entire mixed-use development. Further discussions regarding this proposed site access is discussed later in this document.

Year 2016 Build Conditions

Trip Generation

To account for traffic impacts associated with the proposed development, trip generation estimates for the a.m. and p.m. peak hours and a daily basis were developed using the *ITE Trip Generation Manual, 9th Edition.* Results of the trip generation estimate shown in Table 4 indicate the proposed development is expected to generate 232 a.m. peak hour, 177 p.m. peak hour, and 2,465 daily trips. This includes a 20 percent multi-use reduction, which account for motorists using more than one use on site.

For comparison purposes, a trip generation estimate was completed to identify the potential site generation if the existing uses were fully utilized (i.e. if the fast-food restaurant was not vacant). This trip generation comparison also utilized the *ITE Trip Generation Manual, 9th Edition,* which indicate that the existing trip generation comparison indicate the existing land uses if fully occupied would likely generate approximately 167 a.m. peak hour, 110 p.m. peak hour, and 1,674 daily trips. Based on this comparison, the proposed development is expected to generate approximately 45 percent more daily trips then the fully-utilized existing uses.

G-36

Table 4. Trip Generation – Proposed Development Estimate

Land Use Type (ITE Code)	Size	A.M. Trips		P.M. Trips		Daily Trips
		In	Out	In	Out	
Single-Family Homes	4 D.U.	1	2	3	1	38
Fast-Food Restaurant *(934)*	3,375 S.F.	85	82	57	53	1,674
Existing Site Trips *(ITE – Full Occupancy)*		86	84	60	54	1,712
Apartments *(220)*	153 D.U.	16	62	62	33	1,017
High-Turnover Restaurant *(932)*	4,000 S.F.	24	19	24	16	509
Coffee/Donut Shop *(936)*	1,500 S.F.	83	80	31	31	1,277 (1)
Shopping Center *(820)*	6,500 S.F.	4	2	12	13	278
Proposed Development Site Generated Trips		127	163	129	93	3,081
Multi-Use Reduction (20%)		*(25)*	*(33)*	*(26)*	*(19)*	*(616)*
Total Site Trips		102	130	103	74	2,465
Pass-by Trip Reduction		(35)	(35)	(20)	(20)	(690)
Net New System Trips		67	95	83	54	1,775

(1) Daily trips not available for ITE Land Use Code 936. Daily trips were estimated based on a combination of the peak hour trips and the ITE Land Use Code 937.

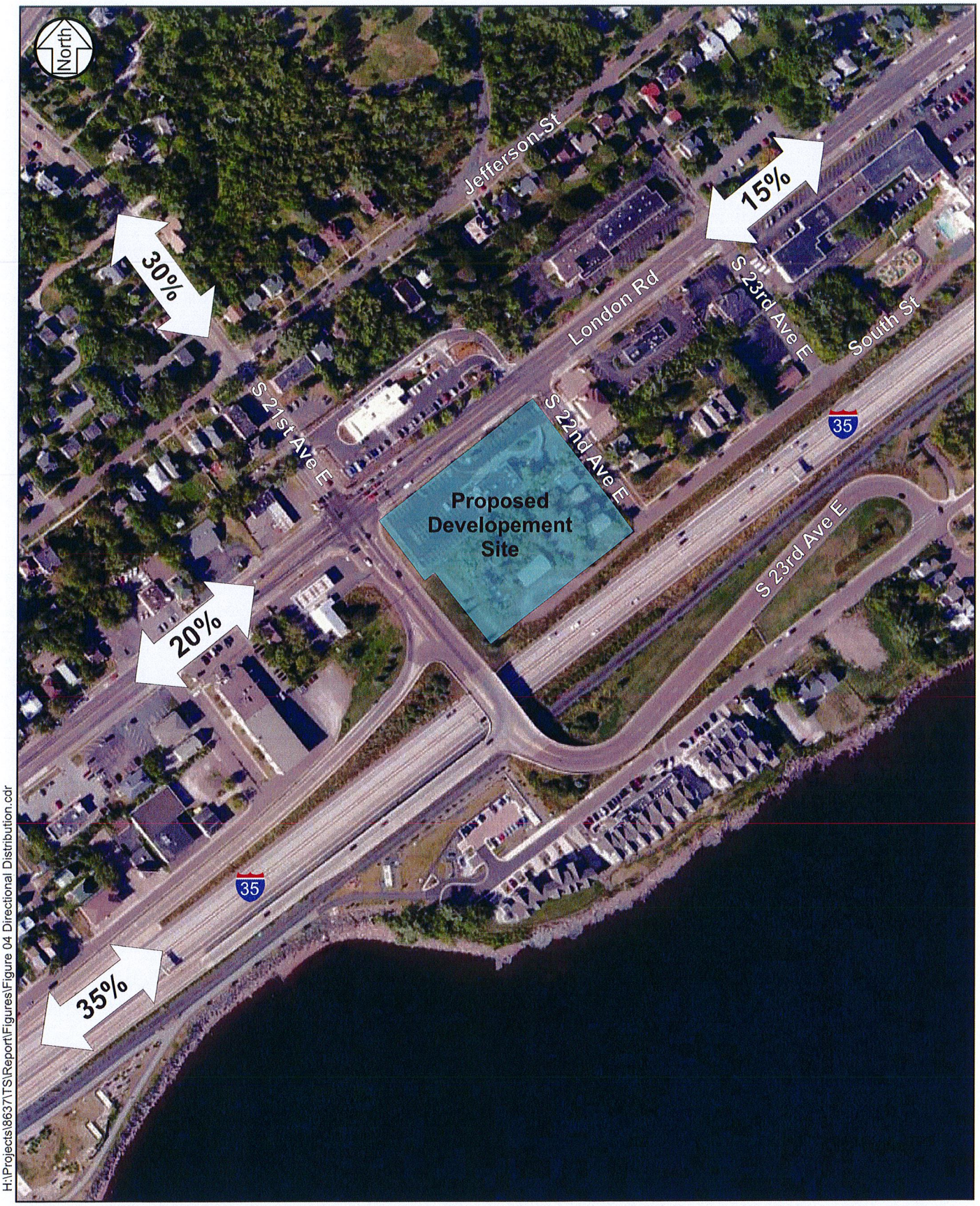
It should be noted that a portion of the development trips are expected to be from vehicles already traveling along London Road that will now divert their trip to the proposed development before continuing on to their destination (i.e. pass-by trips). To account for these types of trips, pass-by percentages for each land use from the *ITE Trip Generation Manual, Ninth Edition* were utilized. Taking into account the pass-by trip reduction, the resultant net new traffic volume impact to the adjacent roadway system is 162 a.m. peak hour, 137 p.m. peak hour and 1,775 daily trips.

Trips from the proposed development were distributed throughout the study area based on the directional distribution shown in Figure 4. This distribution was developed using a combination of existing travel patterns and engineering judgment. The resultant new site trips are shown in Figure 5.

Intersection Capacity Analysis

To determine if the existing roadway network can accommodate the year 2016 build traffic forecasts, a detailed traffic operations analysis was completed. The study intersections were once again analyzed using the Synchro/SimTraffic. Results of the year 2016 build operations analysis shown in Table 5 indicate that all study intersections and proposed access locations are expected to operate at an acceptable overall LOS C or better during the a.m. and p.m. peak hours with the existing geometric layout and traffic control. The year 2016 build conditions are summarized in Figure 6.

6-37



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SRF Consulting Group, Inc.

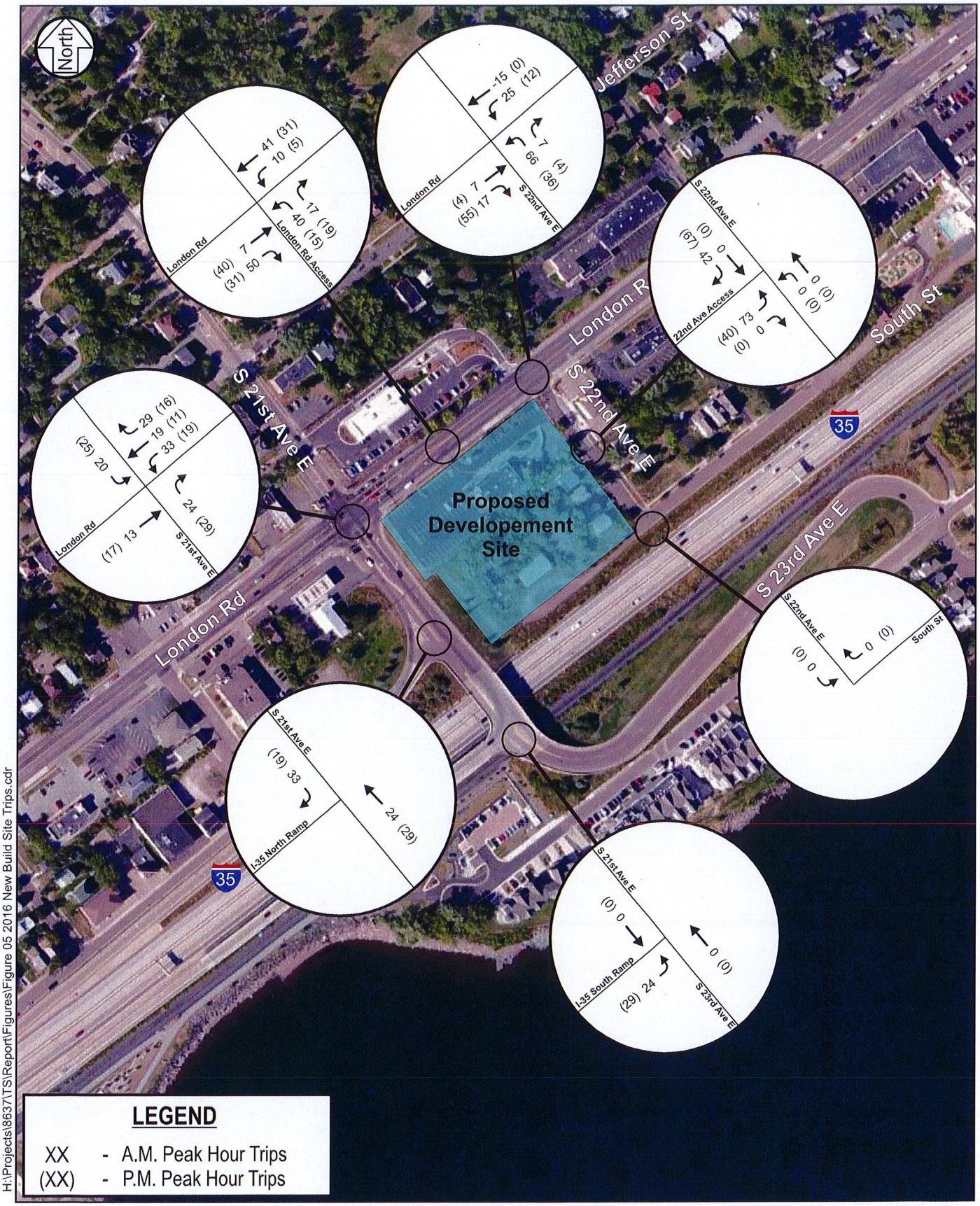
Directional Distribution

21st Avenue E at London Road Traffic Impact Study
Duluth, MN

0148623
October 2014

Figure 4

G-34



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SRF Consulting Group, Inc.

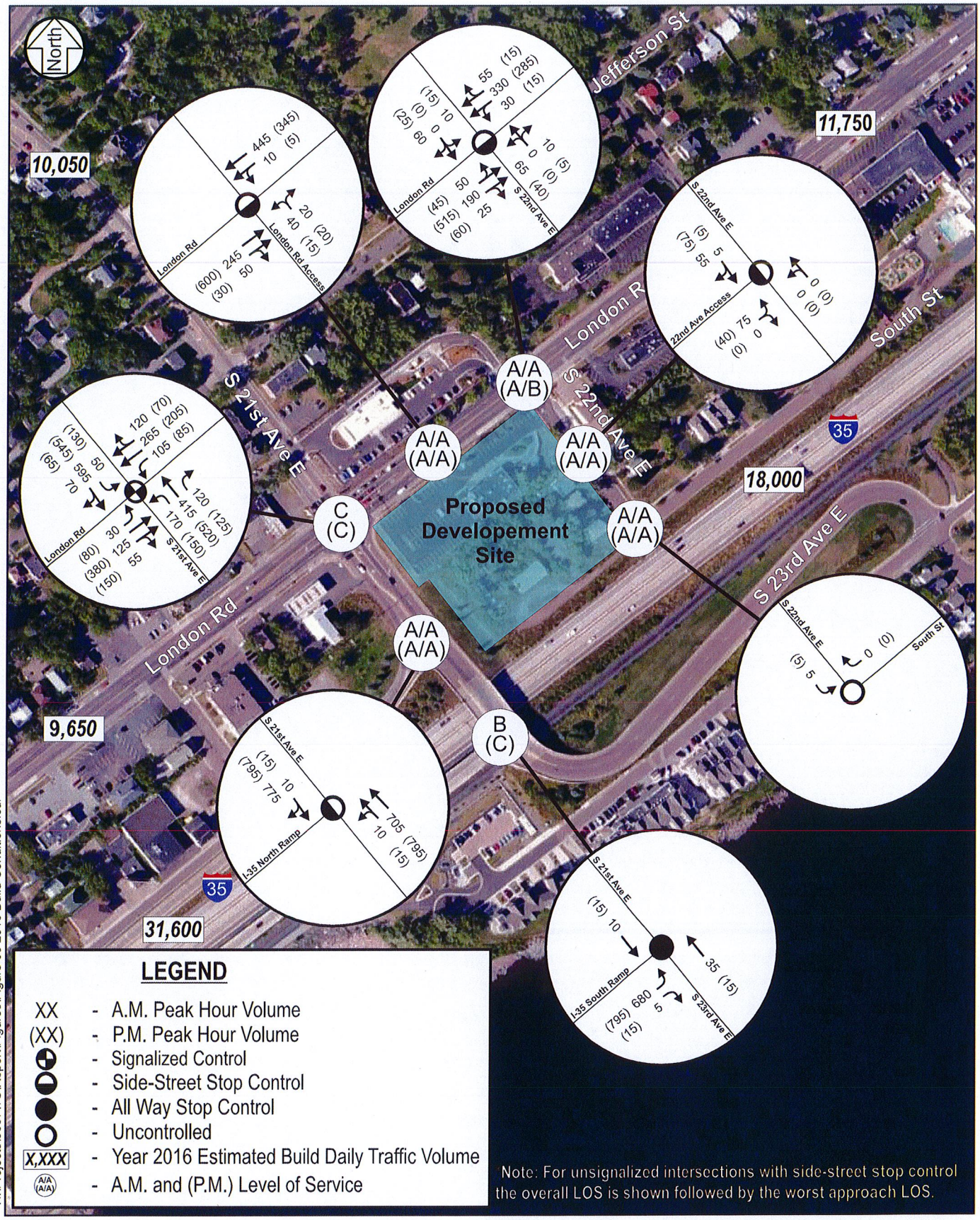
Proposed Development Site Generated Trips

21st Avenue E at London Road Traffic Impact Study
Duluth, MN

0148623
October 2014

Figure 5

G-39



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SRF Consulting Group, Inc.

Year 2016 Build Conditions

21st Avenue E at London Road Traffic Impact Study
Duluth, MN

0148623
October 2014

Figure 6

G-40

Table 5. Year 2016 Build Conditions – Intersection Operation Analysis Results

Intersection	Level of Service (Delay)	
	A.M. Peak Hour	P.M. Peak Hour
21st Avenue E/London Road	C (31 sec.)	C (32 sec.)
21st Avenue E/I-35 North Ramp(1)	A/A (4 sec.)	A/A (3 sec.)
21st Avenue E/I-35 South Ramp(2)	B (12 sec.)	C (19 sec.)
London Road/Site Access(1)	A/A (7 sec.)	A/A (6 sec.)
22nd Avenue E/London Road(1)	A/A (8 sec.)	A/B (13 sec.)
22nd Avenue E/Site Access(1)	A/A (3 sec.)	A/A (3 sec.)
22nd Avenue E/South Street(1)	A/A (0 sec.)	A/A (0 sec.)

(1) Indicates an unsignalized intersection with side-street stop control where the overall LOS/delay is shown followed by the worst approach LOS/delay.

(2) Indicates an unsignalized intersection with all-way stop control.

The queuing issues identified under existing and year 2016 no build conditions at the 21st Avenue E/London Road intersection are expected to continue to impact adjacent intersections along 21st Avenue E. The southbound queues at the 21st Avenue E/London Road intersection are expected to extend approximately 815 feet and 700 feet during the a.m. and p.m. peak hours, respectively. It should be noted that during the p.m. peak hour the northbound queue at the 21st Avenue E/London Road intersection will occasional extend to the I-35 South Ramp. This impacts the eastbound queues at the 21st Avenue E/I-35 South Ramp intersection, which are expected to extend up to approximately 385 feet. To improve operations and reduce queues at the 21st Avenue E/London Road intersection, optimizing the signal timing should be considered.

The City should continue to monitor the 21st Avenue E/London Road and 21st Avenue E/I-35 South Ramp intersections and consider additional analysis if future traffic operational or safety issues occur. No other delays or queuing issues are expected, including at the proposed site access locations. Detailed analysis results are provided in Attachment C.

Site Review

Current access to the former fast-food restaurant is provided at four locations. Two of these accesses are located along London Road, approximately 50 feet and 200 feet east of 21st Avenue E. Two additional accesses are located along 22nd Avenue E approximately 50 feet and 100 feet south of London Road. As previously mentioned, the proposed development plans to maintain two of these access points, the first along London Road approximately 200 feet east of 21st Avenue E and the second along 22nd Avenue E approximately 100 feet south of London Road. The remaining access locations will be closed.

G-41

Under year 2016 build conditions, the proposed development access to London Road is expected to operate at an acceptable level of service. Westbound queues from the 21st Avenue E/London Road intersection are expected to extend up to approximately 125 feet, but not impact operations at this access. However, the City should continue to monitor queues near the proposed development access along London Road to determine is issues arise. If operational issues along London Road occur, installation of a median along London Road to restrict access to right-in/right-out should be considered.

One other improvement offered for consideration would be to extend the westbound left-turn lane at the 21st Avenue E/London Road intersection. This would create a dedicated left-turn into the site, which could help reduce conflicts. Further evaluation would need to occur to determine the design feasibility of this type of improvement.

Summary and Conclusions

Based on the analysis, the following conclusions and recommendations are offered for your consideration:

Existing Conditions

- All of the study intersections currently operate at an acceptable overall LOS C or better during the a.m. and p.m. peak hours with the existing geometric layout and traffic controls.
- Southbound queues at the 21st Avenue E/London Road intersection extend approximately 625 feet and 500 feet during the a.m. and p.m. peak hours, respectively. These queues impacts adjacent intersections along 21st Avenue E.

Year 2016 No Build Conditions

- To develop year 2016 background traffic forecasts, a one percent annual growth rate was applied to the year 2014 daily and peak hour traffic volumes.
- All of the study intersections are expected to continue to operate at an acceptable overall LOS C or better during the a.m. and p.m. peak hours with the existing geometric layout and traffic controls.
- The queuing issues identified under existing conditions at the 21st Avenue E/London Road intersection continue under year 2016 no build conditions.
    - No modifications to the signal timing or geometric layout were assumed to help quantify any development impacts under future build conditions. However, these queuing issues could be improved with signal timing optimization.

Proposed Development

- The proposed development consists of a 153-unit luxury apartment complex with 12,000 square feet of retail space. Based on discussions with the developer, the proposed retail space was assumed to consist of a 4,000 square foot restaurant, a 1,500 square foot coffee shop, and 6,500 square feet of general retail space.
- Results of the trip generation estimate indicate the proposed development is expected to generate 232 a.m. peak hour, 177 p.m. peak hour, and 2,465 daily trips.
  - Taking into account the pass-by trip reduction, the resultant net new traffic volume impact to the adjacent roadway system is 162 a.m. peak hour, 137 p.m. peak hour, and 1,775 daily trips.
  - The proposed development is expected to generate approximately 45 percent more daily trips then the fully-utilized existing uses.
- Two access locations were assumed, one along London Road and a second along 22nd Avenue E.

Year 2016 Build Conditions

- All of the study intersections are expected to continue to operate at an acceptable overall LOS C or better during the a.m. and p.m. peak hours with the existing geometric layout and traffic controls.
- The queuing issues identified under existing and year 2016 no build conditions at the 21st Avenue E/London Road intersection are expected to continue to impact adjacent intersections along 21st Avenue E.
  - The southbound queues at the 21st Avenue E/London Road intersection are expected to extend approximately 815 feet and 700 feet during the a.m. and p.m. peak hours, respectively.
  - During the p.m. peak hour, the northbound queue will occasional extend to the I-35 South Ramps, impacting the eastbound queues at the 21st Avenue E/ I-35 South Ramps intersection
- To improve operations and reduce queues at the 21st Avenue E/London Road intersection, optimizing the signal timing should be considered.

Site Review

- If operational issues along London Road occur, installation of a median along London Road to restrict access to the proposed development to right-in/right-out should be considered.
- One other improvement offered for consideration would be to extend the westbound left-turn lane at the 21st Avenue E/London Road intersection, creating a dedicated left-turn into the site.

LEVY TREE CARE

TO: Mark Bell, Harbor Bay Real Estate Developers
C/O John Erickson, DSGW

RE: Tree Preservation Report for London Rd and 21st to 22nd Ave E

FROM: Louise Levy, Levy Tree Care, LLC.
ISA Certified Arborist MN4406-A
MN & WI Certified Commercial Pesticide Applicator
MN Nursery and Landscape Association Certified Professional, Grower Specialty
TCIA Certified Treecare Safety Professional

DATE: Monday, September 29, 2014

The Tree Preservation Inventory for the development project planned for the block between 21st and 22nd Avenues East on the lower side of London Road contains 32 surveyed trees. Please review the spreadsheet at the end of this report for specific details of these 32 trees.

The intent of the tree preservation inventory and replacement requirements is to avoid gradual and undocumented decrease in the City's tree cover while supporting development within the City. The calculations in the spreadsheet are guided by the City of Duluth Unified Development Code 50-25 Landscaping and Tree Preservation: Section 50-25.9.B.2 and Table 50-25-3 (pages 63-65).

Note: there is one Special[1] tree larger than 20" DBH. Removal of this sugar maple is prohibited (see Table 50-25-3). Finalization of the development plan will determine if construction activities and building construction cannot be accomplished without removal of this tree. Section 50-25.9.B. 2 provides instruction to the developer if this condition arises.

If there are additional questions regarding the data collection or summary, please contact me at your convenience.

Sincerely,

Louise Levy

Louise Levy

G-44

[1] Definitions of Special and Significant trees can be found in the Tree Preservation Report (Revised March 29, 2013).

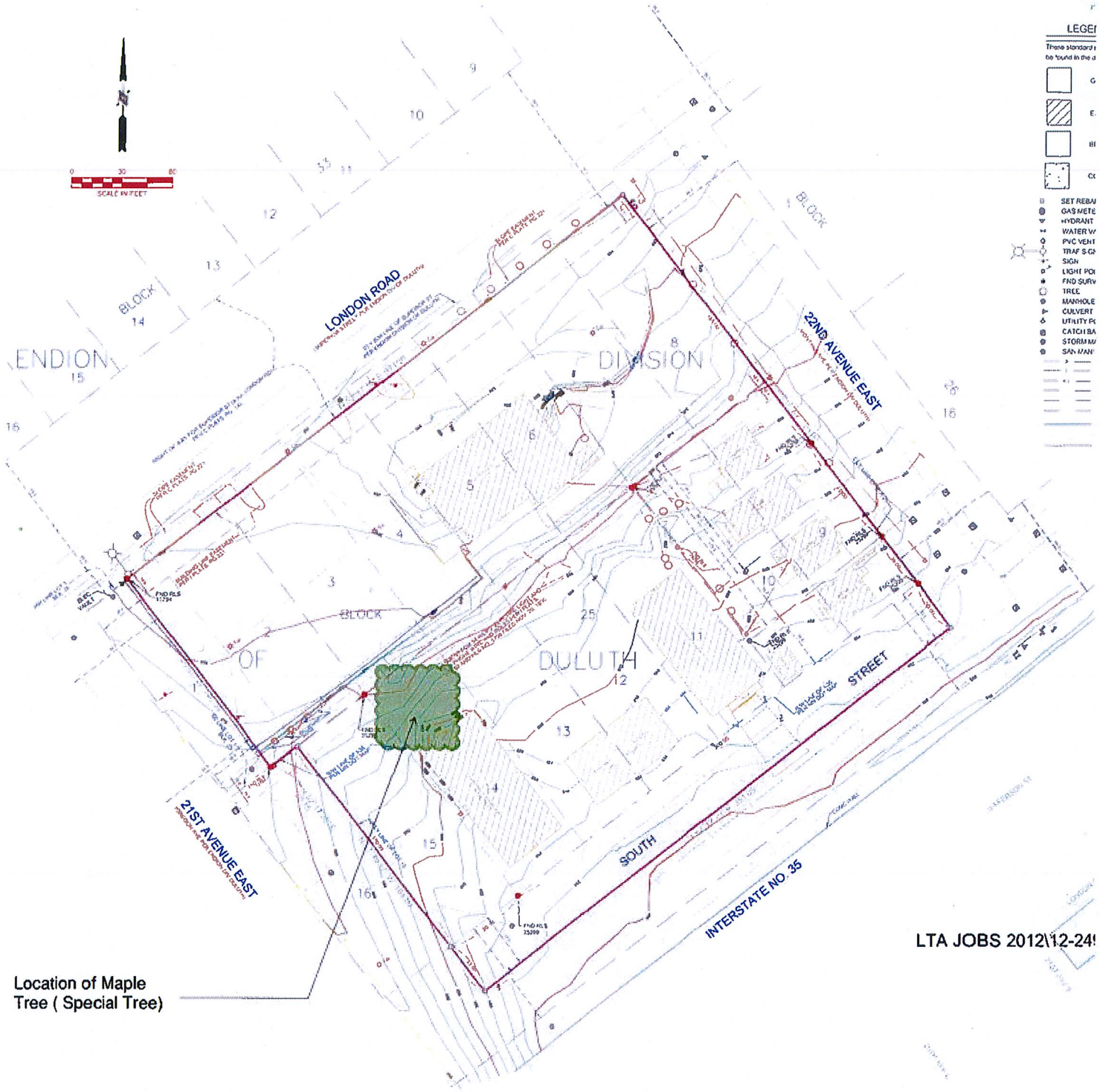
Levy Tree Care, LLC 722 N 13th Ave E Duluth, MN 55805 **T** 218-724-5464 **C** 218-393-4847 info@levytreecare.com www.levytreecare.com

Tree Inventory
Harbor Bay Real Estate - London Road 21st to 22nd Ave E

Species	DBH	UDC Designation	NOTES
Blue spruce	9.7	N/A	located between property line and 21st Ave E
Blue spruce	7.0	N/A	located between property line and 21st Ave E
Blue spruce	8.9	N/A	located between property line and 21st Ave E
Blue spruce	8.9	N/A	located between property line and 21st Ave E
Blue spruce	9.8	N/A	located between property line and 21st Ave E
Ash	10.9	Significant	
Paper birch	10.8	Significant	
Paper birch	8.4	N/A	
Box elder	13.5	Significant	
Sugar maple	25.5	Special	> 20" DBH, removal prohibited (see Duluth's Unified Development Code, page 64, TABLE 50-25-3) unless approved pursuant to subsection b. Because this tree is in the middle of the block, I do not anticipate that it can be retained.
Box elder	12.2	Significant	
Box elder	11.4	Significant	
Box elder	14.3	Significant	
Box elder	20.1	Significant	
Box elder	17.2	Significant	
Box elder	10.5	Significant	
Blue spruce	20.0	Significant	
Silver maple	42.0	Significant	
Big tooth aspen	22.9	Significant	
Box elder	12.9	Significant	
Box elder	13.8	Significant	
Big tooth aspen	10.3	Significant	
Big tooth aspen	13.8	Significant	
Blue spruce	17.7	Significant	
Blue spruce	16.8	Significant	
Ash	10.7	Significant	
Ash	14.7	Significant	
Crabapple	11.0	Significant	Because these trees are established and it is likely that all other trees on the site will have to be removed, it may be worth taking the time and precautions necessary to protect their root systems and trunks during construction.
Crabapple	13.1	Significant	
Crabapple	9.4	N/A	
Crabapple	10.6	Significant	
Crabapple	11.9	Significant	
	372.5	DBH sum excluding trees <10.0" DBH and the Sugar Maple	
	37.3	DBH replacement required (10% of 372.5" DBH)	
	12.8	DBH replacement required (50% of 23.5" DBH)	

G-45

Tree Inventory completed by Levy Tree Care, info@levytreecare.com, 218-393-4847


LONDON ROAD
22ND AVENUE EAST
21ST AVENUE EAST
SOUTH
STREET
INTERSTATE NO. 35
DIVISION
DULUTH
BLOCK
SCALE IN FEET
LTA JOBS 2012\12-24
Location of Maple
Tree (Special Tree)

G-46


Maple Tree (Special Tree)

2 West First Street, Suite 201, Duluth, Minnesota 55802
tel 218-727-2626 fax 218-722-4767 www.dsgw.com

enriching communities through architecture

21st and London Rd Mixed Use Development

50-30 Design Standard Summary

50-30.3 Mixed Use Design Standards

Residential/ Commercial

A. 50-30.1 Multi-Family Design Standards
   1. Accessibility – One principle structure
      Accessibility from the parking areas etc. will be provided and will meet MN State Building Code Accessibility Requirements
   2. Facade Length and Articulation
      Main façade lengths are broken up with deeper articulations that are part of the Residential / Commercial separations.
   3. Façade's are articulated with change in material color, projection and recesses in varying width and depths ranging from 6" to 24"
   4. Roof Design
      The roof is a flat roof design. Parapet projections vary in height 1' to 3' variations from adjacent parapets, coincide with the façade recesses and projections
   5. Four –Sided Design
      A key feature to the design is ensuring that all 4 sides are visually interesting and quality. The same material and color schemes, façade recesses and projections, and parapet projections are an integral feature on each of the 4 facades.
   6. Parking Structure and Carports
      All residential parking requirements are provided by 2 levels of internal parking levels (P3 and P2).
   7. Design Features
      The following features are included: (3 of 11 minimum)
      - Recessed Entries
      - Covered Porches (Decks)
      - Bay windows (as part of projections for façade articulation)
      - Recess and Shadow Lines
      - Foundation plantings

B. 50-30.2.B.1 Ground Floor Transparency Standards
   The façade facing London Road comprises the Commercial / Retail areas
   Façade SF - 10, 718 SF - Transparency is 2,831 SF (26%)
   All glazing areas included in this calculation are within 4' of grade.
   In addition 1,342 sf of glazing area for the residential upper floors

G-4